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BOARD OF MANAGEMENT.

THE usual monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the office of the Society, No. 11 North Parade, Kingston, on Thursday, 19th August, 1909, at 11.40 a.m. Present : Hon. Dr. Pringle, C.M.G., Vice-president, presiding, His Grace the Archbishop, Messrs. D. Campbell, R. Craig, C. A. T. Fursdon, William Harris (Acting Director of Agriculture), A. C. L. Martin, E. W. Muirhead, Conrad Watson and the Secretary, Jno. Barclay.

An apology for absence was submitted from Mr. J. R. Williams and the Acting Governor telephoned during the meeting that he regretted he could not attend.

In the absence of the President and the Vice-presidents, Mr. Craig was called to the chair.

Minutes. The minutes of the previous meeting having been printed and circulated were taken as read. Mr. Craig called attention to an error in the minutes in the voting on the cassava matter, where Mr. Martin's name was published as voting with him against Mr. Simmonds' vote, instead of in favour of Mr. Simmonds.

The minutes were corrected accordingly and confirmed. Dr. Pringle then came in and took the chair.

Half-yearly Meeting. Mr. Craig gave notice that at the next meeting of the Board he would move the following resolution :—

"That in future the Half-yearly General Meeting of the Society be held before the meeting of the Board of Management, if the meeting of the Board of Management is called for the same day as the Half-yearly General Meeting."

He said it was not fair to the business of the General Meeting that the members had to leave for their trains before it was half over.

Cassava Growing. The Secretary submitted the following letter :

Sir,—Your letter of July 17, addressed to me at Hotel Russel, London, has been received, and by the last mail I sent Mr. Toone a copy of this and some instructions bearing on this point. Mr. Toone has sent me some newspaper cuttings showing the attitude of certain members of the Society and correspondents of the JOURNAL in regard to our price of 1/- per cwt. for fresh tubers. I thoroughly understand that some of the contention is by gentlemen who perhaps did not look into the proposition so

our company anticipated making some money through this business, that they would never undertake it, and furthermore, if our expectations are not fully realized we should certainly discontinue it after having once begun operations. It would certainly be very unjust on our part to develop the production of cassava among your people and then discontinue our operations after having found that we could not pay prices sufficient to induce the growing. Therefore, it would appear much more logical should we look to the future with a view of developing a business unlimited in proportions, rather than devote our efforts to obtaining a fancy price for very limited quantities of material.

In one of these newspaper articles I notice a gentleman suggests 2/6 per cwt. If he could show us how to pay this price for raw material and then make a profit for ourselves, we should be only too glad to engage him, and then devote our entire efforts to the growing of tubers rather than purchasing them at such a price.

It is not necessary for us to enter into detail as to our plans for handling this material. It is sufficient to state that unless we can obtain it in Jamaica at such a price as we have suggested, that we must either look elsewhere or abandon the proposition altogether. We could offer an advanced price for selected tubers, but there would always be a question as to grading such material and would undoubtedly lead to much misunderstanding on the part of your people who would grow for us on such a basis.

For our success we must not only obtain the material at a price such as we have offered, but must have it in large quantities. We thoroughly understand that a certain amount of money must be invested in the development of any business, and for that reason we are willing to begin purchasing at any time rather than await the development of the industry to such an extent that it really justifies our handling it. We are studying markets and methods of preparation that ascertain the most desirable forms in which the product must reach the consumer, and all of these things are done openly and their results will undoubtedly reach your country. This will give ample opportunity to anyone competing with us in price, inasmuch as we have had no guarantee from the people of Jamaica that, should we develop a business that may consume unlimited quantities of their product at a fixed price for their raw material, that they will agree to give us a monopoly on such a business in their island.

In some of these newspaper articles there seems to be some disappointment that we are not proposing to purchase lands and build factories on the island. Should we do this, and bring into your country a few thousand dollars' worth of American machinery in the way of labour-saving devices, I hardly see how we could ask the co-operation of your Society, inasmuch as we would practically do nothing for the advantage of the local agriculturist. The purchase of land might mean something to the landowners who have up to the present found no profitable crop for cultivation, but aside from this I feel that we should be much more welcomed as a business enterprise should our mission be to purchase the products of your own farmers.

We wish it thoroughly understood that we are not growers, but manufacturers and sellers of finished products, and that we shall be very glad to conduct experimental farms for the sole purpose of aiding your own farmers by publishing for them the results of our work.

As for Mr. Palache's service: our purpose was to have a man who knew the people and the districts in which we could probably operate, and in no sense to stand as sponsor for the commercial part of our enterprise. We instructed Mr. Toone to arrange with Mr. Palache, provided he might obtain your permission.

I am having some special machinery constructed; otherwise I would have accompanied Mr. Toone to Jamaica. It is probable that I will not leave here until the middle of October, and since the planting season does not begin before November, your people will have ample time to consider

our proposition from the standpoint of a man who must purchase in unlimited quantities rather than be the growers. I trust you will discuss with Mr. Toone fully these points, so that he may communicate with us in conjunction with his own views.—(Sgd.) CHAS. C. MOORE, Manager, Washington, 6th August, 1909.

Mr. Toone, the manager of the Jamaica division of the Tropical Products Company, also wrote under the date of July 25th, asking the Secretary to convey to the Board on behalf of the company, at its next meeting, the deep sense of satisfaction with which they received the Board's intimation that Mr. Palache's services will be placed at the disposal of the company, for one month or two months if required. It was distinctly understood that the Agricultural Society in no way pledges itself to the commercial side of the enterprise.

A discussion ensued on the price of 1/- per cwt. offered by the Tropical Products Company for cassava.

Mr. Muirhead asked where this idea of growing cassava at 1/- per cwt. came from.

It was stated that in the last Bulletin of the Department of Agriculture it was published that cassava could be grown in Jamaica at less than 20/- a ton.

Mr. Craig contended that 1/- per cwt. was a hopeless price for small settlers, and even on a large scale cassava could not be grown at less than £4 to £5 per acre.

The Secretary said that he was, as Secretary of the Society, helping the project as far as he was able, that he had already stated to Mr. Toone that the industry would not likely be taken up on a large scale at 1/- per cwt.—at least quickly—but that there would be immediate prospects of a widespread industry at 1/6 per cwt.

The Chairman said they should not throw the scheme overboard but help it and he thought the matter should be referred to a special Committee.

Mr. Campbell moved that the discussion be deferred until the result of Mr. Toone's visits to the country had been ascertained.

On the suggestion of the Archbishop a statement as to how the whole matter stood and the Board's position on the subject, was directed to be prepared by the Secretary and submitted to a Committee consisting of the Archbishop, Mr. Craig and Dr. Pringle.

Committees. The Secretary submitted revised lists of the various Committees as submitted to the members of the Board by letter for their approval. A few revisions were made and the lists directed to be published in the JOURNAL. (See first page after advertisements.)

Rules re Branches. The Secretary submitted revisions of the rules governing Branch Societies, which had been submitted to the Instructors' Committee as follows:—

(1) Each Branch Society on being formed, shall state the boundaries of the district it proposes to cover, and shall only have members resident in the district or doing business there.

On the motion of Mr. Craig, this rule was rejected by the Board

"Anyone who is a member of two or more Branch Societies, shall advise the Secretary from which Branch he elects to receive the JOURNAL."

(2) To add to rule 6 which reads: "The Secretary of each local Branch Society shall forward annually to the General Secretary, a list of members up to date, together with 5/- for registration fee," the following clause: "*He shall also each month if necessary, advise the General Secretary of any changes in the list of members.*"

Rules re Shows. The Secretary stated that the following revisions of rules governing grants in aid of Agricultural Shows had been submitted to the Shows Committee and been approved:—

To add to Rule 1A: "A list of the proposed judges should be sent to the Secretary for his information and for reference to the Shows Committee if necessary.

2. To add to Rule C which reads: "A list of the prizes actually awarded must be sent to the Secretary within a month after the show; until this is received the grant in aid shall not be paid by him"—"A list of the prizes actually awarded, and a statement of show accounts."

These additions had been formerly made and were usually acted upon but had never been formally added to the printed rules.

Pound Laws. The Secretary stated that as instructed, he had communicated with the various clerks of the Parochial Boards with regard to the working of the Pound Laws, as to whether these could be improved in any way for the benefit of the community. He had received replies from some of them that they had submitted the matter to the members of their Board. He would report fully later.

Inspector of Stock. An intimation from the C.S.O. was submitted that the Government Inspector of Stock, Mr. Linton, would be absent on leave for two weeks, from the 19th July, and that Mr. E. G. Stanigar, D.V.S., would take his place. Mr. Linton had now returned to his duties.

Grants to Shows. The following applications for grants to shows were submitted:—(a) From the Branch Society at Grand Cayman for show to be held in December. (b) From Glengoffe for show to be held in March. The exact dates to be fixed later. Grants were awarded under the usual conditions.

Applications for Affiliation. Application from Davyton Agricultural Society, Manchester, was submitted. The Secretary stated that this Society had been defunct for two years, but had been revived lately. Affiliation was granted.

South Manchester Branch. A letter was read from the Secretary of the South Manchester Branch, asking the Board of Management to purchase an imported boar for the use of the Branch Society out of the allocation made by the Government for improving agriculture in South Manchester. It was believed that a step in that direction would greatly improve the efficiency of the Branch and widen its influence. The Branch Society had Sub-branches at Pratville, Frankfield and Ebenezer, hence it was anxious to know whether these districts were under Mr. Palache or Mr. Smith, as

It was agreed to grant £5 out of the special funds mentioned in the above letter, for the purpose of purchasing a boar.

With regard to the definition of the districts, this matter was deferred until the September meeting, by which time the Secretary stated the matter would, he hoped, be satisfactorily arranged.

Instructors' Reports and Itineraries. The usual Instructors' Reports and Itineraries were submitted and directed to be circulated round the Instructors' Committee.

The Secretary submitted the following notes from the Instructors' Committee's consideration of the previous papers.

(1) Mr. Arnett has had his leave which was granted for July, extended to the first fortnight in August, owing to personal indisposition and illness in his family.

Mr. Mennell has been granted leave for a fortnight in October—he has chosen the first fortnight in that month.

Mr. Williams asked me to prepare a short statement on the South Manchester and South-east St. Elizabeth situation for the next Board meeting; also a report on the general situation, water supply, weather, seed supply, and the progress of experimental work authorised in these districts. Also a similar statement with regard to the progress of cotton experimental work. I suggest leaving this over till the September meeting when the whole situation will be worked out clearly I think.

I made full report to the Instructors' Committee on the July work, and I could read this as regard relief work being done between Mr. Smith and myself if the Board pleases, but in September I shall be able to report fully and more definitely on all the work in hand. We are just at the start of the planting season now in the middle of August, and owing to Mr. Arnett's illness, new districts being made, and new Instructors being appointed, we have only had six weeks to get matters into shape. But I assure the Board that the work has been rushed as it never has been before. This also applies to Mr. Williams' suggestion that a skeleton map of the island be prepared to show the districts of each Instructor, and that the Instructors be asked to make a sketch of the work for 1910-11, so as to be in good time for preparing any further scheme for the extension of the work. I will be better able to make a clear report for the September meeting.

Secretary's Reports. The Secretary submitted his reports *re* Shows at Buff Bay and Port Royal Mountains, which were directed to be published.

New Members. The following new members were elected:—Tropical Products Company, Kingston; A. A. Edgar, St. Ann's Bay; L. Huntley Peck, Spanish Town; T. Hillock, Spanish Town; J. M. Kyes, Costa Rica; J. Thompson, Windward Road P.O.

Mr. Muirhead asked leave of the meeting to speak on the subject of the proposed new contract of the Direct Line Service.

He said two meetings ago he referred to this subject and asked that the Government be requested to forward to the Agricultural Society, a copy of the conditions of the contract of the new Direct Line Mail Service between England and Jamaica. He thought that copies of the contract might be sent to the Board to enable the members to scrutinize it and express their views on it. When the existing contract was made eight years ago, it was done in a very hur-

and was still being expressed as to the working of some of the clauses of the contract. He had been informed that the contract was placed before the Legislative Council at its session this year, when a resolution was proposed and adopted, giving the Government authority to advertise for tenders for the carrying out of the new service.

The Chairman (Dr. Pringle): Which contract do you refer to?

Mr. Muirhead: The new contract which is to be entered into. He had been informed that the terms of the new contract had been submitted to the Legislative Council, and that when they passed the resolution he had referred to, the incidence of the contract was before the Council. He thought that the Jamaica Agricultural Society represented a very important portion of the country—indeed it represented the men who were the backbone of the country—and he thought it would be wise if the terms of the new contract were submitted to the Board so that the members might peruse them. There were probably certain suggestions that members of the Board might make, with a view of effecting improvements in the contract; and he believed that there were none of the members of the Board who thought otherwise than that several improvements might be introduced into the new contract for the benefit of the agriculture of this island. The carriage of fruit on the Direct Line steamers from Jamaica to England, had been one source of dissatisfaction from the very inception of the contract, and the dissatisfaction existed up to the present time. If the contract could be brought before the Board, discussion on the matter might now be deferred, and he would say no more on the subject until the time came when they had the contract before them, or any amendments in the contract, tenders for which were to be advertised for in England. This matter was being discussed when he was in England, and he had heard it spoken of since his return to Jamaica.

Mr. Craig said that His Excellency the Governor, Sir Sidney Olivier, would be here at the next meeting of the Board, and if Mr. Muirhead would bring up the question when Sir Sidney was in the chair he (Mr. Craig) believed that the Governor would submit a draft copy of the contract to the Agricultural Society. He had heard the Governor say that the draft contract would be submitted to the Society. He thought they should not write to the Colonial Secretary on the subject, but wait until the Governor returned to the island and bring up the matter when he was present at the next meeting of the Board.

Mr. Muirhead said he understood that the present contract might be renewed.

The Chairman said there might be several tenders for the contract and it might be a very difficult matter to reveal the condition of any offer without giving information to others which might destroy the chances of any other company getting the contract.

The Archbishop said what he thought Mr. Muirhead meant was that the Board of Management of the Agricultural Society

should see the terms that would have to be fulfilled in the contract by whoever got it.

Mr. Muirhead said he only wanted to guard against a repetition of what occurred when the present contract was made. The country was then saddled with a contract which was obnoxious in many respects, and they were told that they only had 48 hours to decide whether they would accept the contract or not. They had had no voice in the matter at all. The existing contract would not expire until 18 months' time, but he thought that the agriculturists should have some voice as to the terms of the new contract.

The Chairman said he had no authority to make any statement to the Board on this subject, but he thought that the Government would take such steps as to make the conditions of the contract to be entered into known to the Society.

It was agreed to act on Mr. Craig's suggestion and wait until Sir Sidney Olivier could be present at a meeting of the Board.

The meeting then adjourned till 16th September, 1909.

ESSENTIAL OILS OF ORANGE.

I PROMISED to write you on my return to England *re* Oils of Orange. As you know, during the month of January, the prices advanced enormously owing to the Sicilian earthquake, when it was feared all stocks were destroyed. Messrs.—— however, rescued large quantities, and, owing to the big prices, supplies poured on to the market from Jamaica and other West Indian Islands, French Colonies and Spain, the market is suffering from overproduction.

The great danger in this trade is overproduction. I spent some time in New York, Paris and Hamburg, and have seen practically every large buyer in these places and in England, and find that this is going to be the trouble.

Sicily, South France and Spain, in normal times, supply the market's requirements to an ounce; if any slight failure of crop turns up the price goes up a bit, or has done until the last two years, when instead of an advance, West Indian and French Colonial have been bought to make up the deficiency. This disturbance in Sicily has encouraged several new sources of oil to join in, and unless Jamaica (who I know can produce nearly half Sicily's supply) is very careful, we will see oil of orange at 2/- per pound, and no more oil will be used than is at present.

By being careful—I mean having the oil collection and sale practically controlled so that the market can be carefully fed. The buyers are like timid fish, easily scared, if, as is at present the case, they think supplies are coming in readily, they will not purchase until the holder is compelled to drop his price in order to effect a sale. They will play Jamaica off against Sicily and so pull down the prices. The buyers know exactly to a pound what oil is in the various ports from week to week.

Jamaica oils have a future, I am positive, but unless as I have said, they are handled with the greatest care, the whole business will be destroyed. I have spent a lot of time going into this matter and I want you to see that what I am telling you is exactly how the matter now stands.

The oils must be prepared with the utmost regard to cleanliness, and kept away from all dirt, and carefully clarified, and not be exposed to light or air, otherwise their delicate fragrance is spoilt. *The oil I am selling under my brand, prepared and clarified as* it has been done, has brought full market prices: but if once any Jamaica oil gets into the user's hand at all deteriorated, the name of Jamaica oil is gone absolutely, for that buyer at least.

What I fear is, that the articles that have appeared in the various bulletins, will encourage everyone to start oil-making, and we will then get shipments passing to the market through several sources which will flood the market. We will then get a repetition of a state similar to that of Lemon Grass Oil, Citronella, and Ginger Grass.

I am afraid this may happen with orange oil. Sicily can make orange oil cheaper than lemon oil, or at least as cheap, and will fight,—(lemon oil is now offered at 2/11 per lb). The Americans have this last week put a tariff of 25 per cent. *ad valorem* duty on orange oil *only*. This is to encourage Florida, California, and the Phillipines. The effect will be that the oil Italy sends to U.S.A., will now be dumped into Free Trade England. Jamaica must be *careful, and I advise that this season a large quantity must not be* produced, especially of bitter oil, of which the sale is only nominal compared with sweet orange (1 lb. bitter being sold to 30 lbs. sweet). I have seen one quotation offering 3,000 lbs. of bitter oil (Jamaican) at 3/6 per lb. in 20 oz. bottles and dated December 17th, '08, and I know this oil cost 4/3 to put into London.

We in Jamaica have been lucky this year in selling what we have sold (I am speaking collectively) so far, but next year, will I am afraid, be different. I have before me this month's Sicilian offers—sweet oil, 6/-; bitter, 5/9, less 2½ per cent. delivered London, in lots of 500 lbs. 3d. per lb. less.

In case you think, or others may think, that the prices paid for oil in January and February, were for the actual value of the oil, one can only look at the prices of Bermagot Oil. This in January was sold up to 40/- per lb. Besides orange and lemon oil recovered from the earthquake ruins, Bermagot was also recovered. The price now stands at 17/6. Sicily has to sell and realise at once as soon as the oil is made owing to their present lack of capital. The present price of Bergamot is an example, the usual price is 25/.

* * *

[We are satisfied that this correspondent is situated to give most reliable information. Of course he writes as a buyer here and seller abroad, and naturally would like to make the most for his firm's trade. At the same time we know that the firm have been in this business long before last year's boom, and from the nature

of their other operations, they can place essential oils direct into the users' hands. As they have so long been familiar with the trade, they know the various users' requirements: thus they only offer their oils to meet known wants and do not overstock their markets.

We do not say this to advertise the firm but only to help explain the position. The above article is published for the information of those interested in essential oils.

There is one remark we feel we must make. Whatever may have been written in other JOURNALS, we could not have written more carefully on this subject, more cautiously, or more conservatively, than if we had the above article before us at the time. As a matter of fact we had practically everything mentioned about it, in mind at the time we wrote. We wrote in March JOURNAL, 1909, "There is no telling of course, how soon the production in Sicily will recover, but should they be in a position very soon to resume supplies, prices are bound to drop. It must be remembered that there is no great outlet for this oil, but we have the chance now to get into the market, and if this small industry is well organised it could be made profitable, for once well in, we should not easily be put out of the market. We trust therefore, that these oils will be prepared with the greatest care, for simple as the preparation is, the oils can be easily spoiled by carelessness."—ED.]

FLEAS.

THERE have been many startling discoveries by scientists of late years, but none more startling than the discoveries associating bacteria and other microbe organisms with some of the most dreaded diseases amongst men and animals; and still more recently showing how in one way or another, these diseases are distributed and communicated by insects. It has been shown that through these insects malaria fever and other diseases are transmitted among humans. Many animal diseases are spread through the agency of ticks, while the apparently insignificant flea acts as the carrier of the terrible bubonic plague, which has been such a scourge in India, and the great dread of which has drawn attention to the part played by the particular kind of flea which infests rats, and so has aroused special effort to kill rats.

Each animal has a flea of a different specie infesting it. The fleas which cause the most trouble are those affecting the dog and cat and the common house flea. The jigger also plays his part, but fortunately we are not much troubled with it. The pig is the chief host of the jigger, and this insect is easily dealt with and kept clear of by keeping pigs away from the house yard. In the case of the cat and dog the eggs are laid on the host, but unlike many other eggs of insects, the eggs are not fastened on in any way, (like for instance the eggs of the bot-fly on horses), and so they get loose, and lurk in the cracks of the floors, the dust of the yard, the straw

variety from the dog and cat flea, and deposits her eggs anywhere about the house and the crevices of the floor, in cushions, in beds, an d so on. The larvae are worm-like, whitish creatures, which feed on the debris they are hatched among: under the most favourable conditions the larval period may be completed in seven days, and a further eight days may see the perfect insect. Generally, however, they take longer to do this, and the average time of coming to maturity may be put down at about a month. Dogs and cats are chiefly responsible for the number of fleas in the house. The dust of the yards, the stables, fowl runs, cattle pens, are often infested with fleas, and there they breed enormously: and where such are near the house, fleas readily migrate or transport themselves into the house and become an intolerable nuisance. Where the house is so infested, insect powder may be thickly strewn on the floor, let lying the night and then swept off, but supposed to be better than this is the new wash called 'Paranaph,' introduced by the Island Chemist. This is composed of soft soap, parafin or kerosene, and naphthaline, is sold in the ordinary form of soft soap, and is used in the same manner. One pound makes a kerosene pan full of wash.

We have been asked by the Government to stock this so as to introduce it to the public. It is also used for getting rid of ticks on cattle and domestic live stock.

RUM SHRUB.

Recipe for making a puncheon of say 110-20 gallons:—30 gallons proof 18 rum, 30 gallons seville orange juice, 30 gallons or 240 pounds muscovado sugar, four gallons lime juice, six gallons sweet orange juice, a small quantity of water, leaving space to bung, one quart temper lime, and to complete, the whites and shells of a dozen fresh eggs well beaten. The cask to be placed on a proper horse and the liquor well stirred each day for four or five days, then left to settle and clarify.

It is advisable to have a wooden tap inserted at the commencement so that when the shrub is ripe, the sediment will not get disturbed by putting it in at this stage. The wood being preferable to brass in conequence of the action of the acid. The liquor will be fit for use in a few weeks, but a longer time is an advantage, as it improves very much by age and becomes quite a liqueur.

The above recipe is written from memory, the original being given to me (now lost), and tried with great success, over 30 years ago.

If Mr. Husband visited St. Bess about that time, it is not impossible he may have sampled some of that very same brew.—Geo. R. Smith.

Another recipe from Grenada will appear next month.—Ed.

Butter applied at once to a burn will prevent the skin from blistering.

ORANGE SHIPPING.

HAVING experience of this business in England and now as I have had good opportunities of seeing the trade out here, I should like to tell you how I sum up the situation, which may or may not be of some value to your readers who are interested in this valuable asset to Jamaica.

To secure a good market for your fruits, one must needs look at both ends of the trade, and the shipper should view each fruit he packs with the same criticising eye of the buyer who will, if it pleases, ultimately purchase over the counter of some shopkeeper.

Shippers must do their utmost to only send the finest and best conditioned fruits and pack them attractively, so that they may help to advertise themselves and better compete with other colonial and foreign fruits, and to hold the market the producer must do all he can to help the handler who actually sells the fruit and so make him a constant buyer as I will try and explain.

I should like to add here that it would be an impossible task to set any one man to look after the Jamaica orange trade at home, let alone looking after the other various products of this island, as I believe it is suggested to do by sending a Commissioner to the British Islands. A dozen commissioners couldn't make a shopkeeper stock an article out of which he could see no way of making a profit; Jamaica oranges need no advertising agent as they are well known and appreciated throughout the British Isles. No sir, it is not the duty of any one man but the united energies of fifty or more responsible shippers, each appreciating that to see the trade flourishing is to only ship the very finest fruit, endeavouring to secure good condition on arrival and thus help the retailer to make a fair margin of profit, for this is the man who can make or destroy the business.

The law of registrating an export trade-mark is one step in the *right direction, but not far-reaching enough, as it does not prevent* the unscrupulous or shall I say ignorant packer from shipping or selling to other shippers on the spot.

Personal supervision by the actual shipper is what is required, and if he is unable to do this then he must find better means than the occasional overseeing by his subordinates, of the packers, who know nothing whatever of the trade requirements and whose only ambition it is to pack as many boxes as possible at so much per box, now, how can this packer work for anyone but himself, and who is to see what he puts up when the overseer's back is turned? Certainly a packer is working for himself and his employer when the boxes are going to be sold by him to a speculating shipper. In *these instances the fruit generally arrives in bad condition* and 99 times out of every 100 the steamer is blamed for it all, and those who are responsible for putting up get off scot free. When the bulk of the fruit arrives in bad condition steamer after steamer, buyers become disgusted with this state of affairs, and unless they examine practically the whole contents of each box they buy, it is impossible for them to calculate the quantity of saleable fruits.

Generally they are too busy buying their other requirements to do this, and certainly they do not get the chance at all when they are sold under the hammer, except a glance at the sample cases on view and therefore, unless they buy privately from the brokers, who take the trouble to examine the shipment and repack if necessary, it is only sensible to suppose that the buyer will pay a price on his own estimation of the sound fruits and to be on the safe side bis estimation is well in his own favour. Should the fruit constantly arrive in bad condition and the prices paid not prove a profitable transaction and buyers loose money time after time, they eventually refuse to stock Jamaica oranges and naturally buy other fruits, which they can display in the windows of their expensively rented shops, and sell and make a living out of. It is under these circumstances that one occasionally hears that there are no Jamaica oranges for sale.

A word on profits, and these figures must be taken as quite a general average throughout a season. The price paid by the general public for a fair sized orange, say 200's, is one penny. They expect to pick out the best and sometimes get seven for six—work it out, 200 at 1d., 16/8—selling them in penceworth you must allow the vendor 50 per cent. for profit and selling expenses which makes the price to him 11/-. Now most shopkeepers and all those some distance from the markets, employ an agent to buy their various fruits and vegetables, and then there is delivery expenses, and for these two items one must at least allow a further 1/—thus assuming 10/- to be the price paid, the nett return to the shipper would be say 2/- or 25 per cent. profit on 8/- which I estimate is the average cost freight and selling expenses, and surely a very good return, at least 50 per cent. on the actual cost of the fruit after allowing for all rejections. The above instance is assuming that all the fruit in the case are sound and thus we see why fruit only fetches 5/- if half is estimated to be unfit and so the shipper loses.

Is it not, from these facts, desirable to do all that one can to send good fruit and thus make it pay both for shipper and shopkeeper? And I will go further and say that this state of things would more popularize Jamaica oranges and they could stay in the market long after the arrivals of the Mediterranean, when the Jamaicas are of better flavour.

The reddish colour of the Mediterranean (which were the first imported into the United Kingdom) gave us the idea that the yellower and therefore sour-looking Jamaica could not be ripe, but nowadays the Jamaica, although the colour more of a lemon, has proved it can be just as sweet and even better flavoured than that from Spain.

Early fruit which is good looking and sound often commands extraordinary prices on account of its scarcity and being as it were an out-of-season luxury, is bought by the wealthier classes for table decoration only and not for eating and so never mind about the flavour. The few who endeavour to eat them and condemn them as too awful for anything are so infinitesimal that the enhanced prices

easily outweighs any argument for not shipping until the fruit is more fit for eating.

Apropos of one hearing that Jamaica oranges are seen ticketed in the window of a leading fruiterer in London at 2/6 for a basket of 5, I don't know whether it would not pay best to rent a shop at £50 per annum and sell a case at seven for 6d. including the damaged ones than 5 for 2/6 and rent at over £1000 a year, to say nothing of rates, taxes, salaries, lighting, carts to deliver home; only pick out the very finest in the case, supply the basket and give long credits.

There is another tale that can be explained away. When questioned, dealers in Covent Garden market have asked say 17/6 a case for Jamaica oranges and at the same time the shipper is being account saled say 8/6. How is it? This dealer probably purchased 50 or more cases at 8/6 to supply a number of outside and country shopkeepers, who buy their fruit every day from him and to keep these customers the dealer must trade at the lowest possible profit and further, only send out decent fruit; he has also to rent his store and look after the handling, give credit, etc., and then possibly net 6d. or may be 9d. a case, he cannot get more or his neighbours would undersell him and he would lose his clientele—but this stranger comes along and is asked 17/6 a case; he may want one case for once in his lifetime or may be asking merely out of curiosity while wandering around the market. These dealers know a stranger if not by his looks by his manner of enquiring. No, go to the auctions first, plenty of the fruit is sold in this way, or find out the prices from trade journals, etc., then add a fair profit and offer this amount to one of these dealers for half-a-dozen cases and say if they turn out well you can take a similar quantity twice a week—then see if you are refused.

Everyone who deals in fruit does so for a living, if he can, and the man on the other side certainly has the better chance, as he can buy or not just as his trade commands him—he knows his market and the immediate conditions and does not have to anticipate like the shipper; but the shipper can ship to make profits if he will take the necessary pains in packing, ship steadily and as near to the market requirements as possible, year in and year out and average his profits over a number of seasons, and when as I previously said, let all the shippers be of one accord and only send the really properly selected fruits, so that the Jamaicas may keep their reputation, and I am sure then there will be no cause for complaints; reports of "no market," "very nasty," "buyers dictating their own terms," etc., will be conspicuous by their absence and will not be the usual thing added to an unprofitable account sales.

I fear a good many shipments of fruit have been spoiled somewhat for the lack of the proverbial "pennyworth of tar" in the way of non-attractive box-labels and wrappers—for a simile I would suggest that we have often been guilty of buying a cardboard box, a pretty picture, some ribbon and a few pennyworth of chocolate for

If I may, I should like to add another word or two, before closing this letter, about the sorting and packing, which is the paramount reason for my writing it. The chief aim of shippers must be to do all that can possibly be done on this side to ensure the best-looking and therefore the most saleable fruit going forward and do all in their power to ship only those of the best which will carry properly. How to do this can only be gained by experience, and if those who actually do this work know nothing of the trade, ever see the results or have any interest in the sum total of the account sales, how can the desired result be achieved ?

It is not feasible to think that a grower can put in all his time watching the packing, so he must drive common sense into those under him who are overlooking the workers, and when all the different stages of curing, sorting, grading, etc., are carried out, let the overseers examine each fruit before it is wrapped, nailed down and out of sight until opened nearly 4.000 miles away. Personally I have gone so far. if other means and ways fail. and said I would pay at per 100 for the fruit which were rejected so that I could check what had been packed rather than pay for box, paper, labour, trainage, freight, selling expenses and what not (amountiug to as much as 6/6 in some parts) and lose on the rejections, than ship boxes, which unless I could see every fruit packed, I could not say what the contents were like. It would be easy enough to arrange to pick out again any fruit which should not have been rejected.

This is perhaps extreme but applies absolutely with grapefruit, and if this had been resorted to, less fruit would have gone forward just recently, and I am sure to the benefit and not for the loss of, I fear, several shippers.

In a nutshell. grapefruit requires to be "dressed" for the British markets, that is washed and polished generally, turned out to look fresh and tempting, quite a picture in fact—five minutes spent on each for its finishing touches at 1/3 a day would not be wasted by a long way.

In Jamaica one can only imitate the Mediterranean packers in these ways : proper attention to selecting, neatness in packing and use of attractive labels and wrappers. As to the period required for curing and whether the fruit should be laid out singly on open lathes in the fruit houses or be piled in heaps on the floors of any old, unlighted nor ventilated sheds, can only be acquired by experience in handling the fruit particular to this island and upon which I am not able to say anything. I certainly have seen many fruit houses turn out twice as many as they are capable of doing properly, but which would probably have been large enough if the fruit had its first selection when being admitted.

I trust some of my remarks on the general trade may be of use to many shippers, even those of many years' experience, and it is only to those who have recently commenced or are about to ship that I direct my statements regarding the sorting and packing.—ARTHUR R. KELLY, 21st May, 1908.

[This was written last year intended for publication in this JOURNAL, but only came into our hands lately.—ED.]

GUINEA CORN.

We have been making efforts to popularise the growing of guinea corn, not only for the sake of the seed but also as a green forage, and seldom a month passes but we make reference to it in the JOURNAL. It has been pointed out in various articles by ourselves and others that in olden times guinea corn was grown in all the dry districts to a large extent, and largely depended on for food for man and beast.

Within the last score of years, however, this grain has gradually gone out of use, notwithstanding its manifold advantages. As in other countries, the use of shop stuff has gradually increased here, until now in travelling we seldom pass more than a few miles without seeing a baker's oven, and our imports of wheat flour have gone up tremendously. Yet with so many sugar estates out of cultivation and less labour regularly employed than formerly, consequently the large increase in small settlers not only owning their own lands where they usually cultivate staple (exportable) crops, local foodstuffs, and the large increase of rented lands, almost the only product of which is local foodstuffs, there ought, therefore, to be now a very much larger quantity of foodstuffs available than ever before, in the shape of yams, cocoes, sweet potatoes, corn, plantains, etc. Even taking into account the large acreage of land under bananas, this does not account for the increased use of imported foodstuffs, for such lands were in the first place nearly all under sugar, and secondly, allowing for the number of bananas exported which are now produced in increased quantities, we find an excellent foodstuff in the bananas not sold for export. Indeed when ground provisions were scarce during these last two years, green bananas were the great standbye instead of yams.

After the month of July, there is generally a large quantity of green bananas available at a cheap rate.

There is apparently, some contradiction in all this. With a larger amount of land available, and a larger number of people cultivating, even allowing for increased population, either the production per acre is very small or there are very large numbers who do not work but still must find something to eat.

We have taken up this matter of growing guinea corn in a more enthusiastic way since we found out personally how valuable a foodstuff it was. The Island Chemist has reported in his analysis that the red guinea corn that we are trying to popularise, is very rich in protein or the flesh-forming element, almost equal to Scotch oatmeal in this respect, while containing a great deal less fat than the last named foodstuff which makes it more suitable for use here.

This guinea corn, for instance, just solves our difficulty in feeding poultry ; it is as fattening but not so heating as corn, while making more flesh. That is one good point about it as a poultry food ; the other is that the grain is small and that if it is fed indiscriminately to fowls and chickens, and if the latter pick it up they thrive

on it. When fowls and chickens are kept together as they most often are here, the little chickens try to pick up whole grains of corn fed to the fowls, and often these die of indigestion. Another thing is *that the heads of guinea corn can be flung to fowls without threshing* and they spend a busy and satisfactory time picking out the grains. It is also an excellent horse food, and then again the heads can be given to the horses also without threshing. The stalks do not make such a good feed as ordinary corn stalks fed green as they are much tougher. Guinea corn is a Sorghum, but there are special varieties of Sorghums grown for green forage, which are more succulent than guinea corn. The seeds of these Sorghums are also good for chickens, but are not so nutritious as the guinea corn.

We often receive questions asking how to plant guinea corn. *We must say that the crop has its drawbacks. The first of these is* that ants are very fond of the seeds ; so are birds, and both will take the seeds out of the ground. The birds, however, are greater enemies, as when the seeds are ripening they come down in flocks upon it. By some sportsmen this is considered an advantage, and they plant white guinéa corn to attract flocks of wild pigeons. When the cultivation is small it is difficult to save the ripening seeds from birds. When the cultivation is large enough a boy can be employed to go round and make a noise. However, there is an ingenious way of partly protecting small cultivations from birds. By putting up a toy windmill so formed as to make a noise. We have seen such a windmill with red strings upon it and little bells, and in this way birds are scared. We cannot say whether this will always act, but it seems worth a trial.

When planting the seeds a pan of wood ash should be taken and damped with kerosine oil, then the seeds should be shaken through and left a night. The kerosine and wood ashes stick to the seed, and the ants will not touch anything with the taste of kerosine about it. It is strange that kerosine acts beneficially otherwise on seed, for you might think that it would burn seeds, but even delicate seeds can be steeped in kerosine for a couple of hours, and if anything, this hastens growth. We prefer the wood ash and kerosine plan.

Some varieties of guinea corn grow very tall, 12 feet or more. Yet the stalks are so tough that they bend before the wind like bamboo, and do not break. A guinea corn got from the Phillipines grows like this. We prefer, however, a smaller, compact head of guinea corn to the tall branching varieties. One variety of red guinea corn grows very quickly. For instance, on the 7th May, seeds were planted thickly. Two light showers favoured growth. On the 7th June this guinea corn was full grown and all in head. On 30th June, ripe heads were taken in. By this time green shoots were already about to make other heads at the side and ratoons were springing from the roots. The seeds of guinea corn should be planted five to six in a hole, and these holes should be made two feet *apart with three feet between the rows. In growing for green forage*, however, it is better to make drills and sow rows of seed. This planting then makes the stalks more succulent. If guinea corn hap-

pens to be planted too thickly for growing seed, the little plants can be transplanted with advantage. In this operation they require to be eased up, not drawn up, and if dipped in a paste made of water and earth—mud—they will plant safely even in dry weather.

We have laid in a stock of red and white guinea corn seed imported from the United States, and some Sorghum seed for green forage, all at 6d. per lb. post free.

COCONUTS.

At the meeting of the Board of Management in June, a resolution from the Sav.-la-Mar Branch was presented, asking for a commission to investigate into the matter of the disease of bud rot in coconut trees, prevalent in that parish, as reported by the Agricultural Instructor. In the JOURNAL for July we published a report on coconut trees in Portland by Mr. Cradwick and the advice therein given should be followed.

It was pointed out at the meeting that a good deal of correspondence, and a good many articles on the subject, had been published in the AGRICULTURAL JOURNAL, and also in the Bulletins of the Department of Agriculture which contained a valuable amount of information. The Acting Director of Agriculture was asked to extract the best articles from all this matter available and publish it in pamphlet form. This has been done and the pamphlets are available. We might explain that we desire readers to keep the subject before them and try to understand as much about the troubles that affect coconut trees as possible. Bud rot disease of coconuts is known wherever coconuts are grown. In the East, especially in Ceylon and Travancore, the disease is well known. In Cuba what is supposed to be this disease is rampant,—we published a note about this on page 231, JOURNAL for July, 1908. On page 231, JOURNAL for January, 1909, the result of experiments by Mr. L. A. Wates of Portland (now appointed one of our Agricultural Instructors), is noted. While he was in the west end, Mr. Cradwick carried through some experiments in spraying coconut trees with Bordeaux Mixture, and he is still following up the disease in the east end. Because we have bud rot disease here, people must not run away with the idea that all coconut trees that die, apparently from the top, have died from bud rot disease. Many coconut trees die through unsuitable soil conditions, not only through lack of drainage, but sometimes through poverty of soil, and when the roots become diseased, as the coconut grows from the cabbage or bud, the growing point becomes unhealthy also. The lowest leaves then yellow and droop, and decay, the bud or cabbage becomes more diseased, more and more leaves decay, until only one or two of the latest leaves are left green and then soon follow the others. The yellowing of the leaves, however, is not always a sign of disease; continued drought might cause the leaves to yellow, a poor or un-

drained soil might have the same effect. It is always a safe plan, if there is no continued drought, and the young leaves are seen to be withering more than would happen ordinarily, to send a boy up to examine the cabbage. If this part is diseased it tells in the smell. If taken in time the cabbage may be treated with Bordeaux Mixture, which is made of sulphate of copper and lime, the recipe for which has been given in the JOURNAL. The usual way, and an effective way of treating all diseases that affect the top of a coconut tree is to burn the trash and so scorch the top. This, curiously enough, does not kill the tree, though if the burn is too severe it does—but of course it may take a year or so for the tree to recover and begin bearing again. But the burning cures the bud rot.

The true bud rot disease is now supposed to be a bacterial disease, and the spores are carried by the wind, but we think the same rule applies as with all other plants and animals too, that the disease does not readily attack perfectly healthy trees, because then all coconut trees would be liable to be attacked and die. The bacteria is probably only able to take effect on trees that are already unhealthy, through some unfavourable conditions. So that while trees may not die out entirely through lack of drainage or poverty of soil, these drawbacks may cause in them such weakness as to lay them open to the action of the bacteria of bud rot.

The first item to look at by those who have coconut trees is that the drainage is good, and that any trees that are standing in poor soil get a dose of good manure to stimulate them. We have in mind a number of coconut trees, everyone of which was apparently about to die out; the leaves yellowed and dropped so much that there was only a tuft left at the top. As the soil was gravelly and the drought was severe, it was evident that there was no lack of drainage. The cabbage too had not gone wrong. As the trees were worth saving, the grass was clean weeded around them and cows tethered to each tree as the most convenient way of conserving manure and moisture. Of course all the trees were not done at one time, and this method could not be so easily carried through on a very large estate. The cattle were hand-fed, and after being a week at each tree the ground was loosened up and mulched. The effects were marvellous—there was soon no sign of disease about the trees, they put out fresh leaves and soon bore and bore well every time. Even though the cabbage may rot, the trouble may not always be *the* bud rot disease. The true bud rot is a very serious trouble, and one prominent coconut grower thought so seriously of it, that he asked the Society to recommend to the Government the compulsory burning of all dead coconut trees. All coconut growers in their own interests, should never allow a dead coconut tree to stand rotting, as these trees soon become the home of coconut pests of various kinds.

USE adhesive plaster to fasten labels to cans or bottles. *It is dangerous to leave*

GOATS.

It is remarkable the number of goats that have been sick throughout the island lately. This is not a usual state of things, and is probably due to the long dry weather, so that not only have the feeding grounds not had a good scouring by heavy rains, but also the feeding has been poorer than usual. These circumstances have encouraged the breeding of parasites both internal and external to a large extent. On page 237 of the JOURNAL for October, 1908, we had an article on the keeping of goats, where it was stated that especially where they were kept in pens at night which were seldom cleaned, they often suffered from lice and very badly too. If a goat owner were observant he would easily find out when lice were troubling the animals by their scratching. Then we went on to say that where a few goats were kept they could be washed with a brush dipped in strong jeyes and water. Where many goats were kept a patent sheep dip should be used, and an old cask used for the dip. We went fully into the subject and gave preventive and corrective treatment. Owing to further correspondence we again repeated on page 424 of the JOURNAL for December, 1908, the warning about lice. In April, 1909, we gave Mr. England's experience of his goats dying. From the description of his troubles we thought that they suffered from both strongyli and worms, and we said in reply to another correspondent that we had known of a flock of goats sleeping in a pen night after night which was a seething mass of lice though these were never observed by the owner.

We are glad that our diagnoses have been correct. We advise owners to look to their goats closely and see if they have lice, and if so, they should wash the goats at once.

We again publish a letter on the subject.

* * *

With regard to the Strongyli, there can be no doubt that the goats at the time I wrote you, were suffering from a severe attack of Strongyli, and that the remedy you gave proved singularly effective. I required no better proof of the existence of the disease than the emaciated condition of the goats before I dosed them—the myriads of dead worms found among the droppings after the goats had been dosed—and that they have been cured, I need no better evidence than their present sleek condition.

This is what I did—As soon as I heard from you, recommending one dessertspoonful of turpentine, one tablespoonful of castor oil, and one tablespoonful of fish oil, as the dose for half-grown kids—I dosed every goat on the property, whether it looked ill or not; and the result is that many did not evince any particular signs of illness, but they must have been infected.

Coming now to the goat lice—for the strongyli and the lice went together.

All the goats on "Orange Grove" were a healthy lot, but some months ago I bought some goats from one flock. Not long after my troubles began. Most of the kids from these goats died, and the goats themselves started to look very miserable. Then my "home" goats started to look as if a wretched appearance was all they were living for, and their kids started to die. Then I wrote you. From what I discovered afterwards, there is no doubt that the goats were suffering from strongyli as well as

goat lice. Neither my headman nor myself had ever seen goat lice, and I knew of no one who was able to tell me about them. I wrote you, with the result stated in paragraph 1 of this letter. I thought that as the goats were looking a little better that they were quite all right now. I then bought a large number of Angora-blooded goats from Mr. C——, of W——, these goats being woolly-haired goats, took the lice as they arrived at "Orange Grove," and in two weeks after they arrived, started to die from what I thought was anaemia. I can state positively that when these goats arrived here they did not show any signs of illness. I have recently bought several which had been procured from W——, before I purchased mine, and these did not have one louse on their arrival here. These latter have never been ill, for they arived after the lice had been exterminated.

I gave the sick Angoras port wine, kola wine, and whisky, and I also gave them the medicine for strongyli that you recommended. In no instance was there the slightest sign of strongyli. I state this after the closest examination of the intestines and the bronchial tubes.

These Angoras just wasted away, and in a short time a number of them were dead—from what I considered was no organic cause. In about 50 per cent. of these cases, scours was the precursor of death.

A gentleman, who had considerable experience with goats, came to see these Angoras, examined one, and pronounced it as suffering from goat-lice. He told me to look at it, and only after repeated examination of the hair and skin, did I discover a little black speck stuck close down to the skin, then some browu ones, then some white, and then I realized that the entire skin was covered with these specks, and that they were lice in different stages of growth, and that the brown specks stuck on to the hairs of the goat were the eggs of the lice.

We had an examination of the flock—every Angora had lice, and on examination of the home goats, I found that they were all infested with lice. We decided that a dip was the only thing for them. I got an old estate's copper, filled it with one part of Jeyes' fluid to twenty parts of water, and put each goat carefully in, for I was mindful of the fact that several of the ewes would be in kid, the whole body, except the head, was immersed. I let each one remain in the copper for a few minutes, then I made it stand and washed the head carefully. I dipped the whole flock, about 300, several times, allowing a week between each dipping. I used no other method, and used no medicine. The goats shewed a marked change from the date of the first dipping. Stopped stretching themselves, and apparently trying to eat their hair. They are now in the pink of order. In every case where I observed a goat fidgety, and looking ill, I examined it, and sure enough, it had lice. A man around here bought a beautiful half-bred Angora from W——, some time after, I observed it to be in very bad order, and through curiosity had a look at it; it was infested with lice, the kid also had lice, and was in wretched order. I had them dipped for him twice, and they are both in fine order now. A friend of mine had a "Creole" goat which was looking ill, and I examined it; I found it covered with lice. Both these goats had access to goats that I knew had lice.

I have to travel the entire breadth of the parish occasionally, and often when driving along, I have stopped through curiosity to have a look at any goat that I observe to be looking ill, and the percentage of these that are covered with lice are remarkable.

This is a pity, for I have not met one person in this parish, in spite of a pat statement that they "know what goat lice is," who was able to spot them on the goat or who recognised them when shewn on a piece of paper. I regret to have inflicted you with such a long letter. I have written as fully as possible, as I think it is a duty I owe to the Secretary of the Jamaica Agricultural Society; and as you have been kind enough to take an interest in the matter, it is not impossible you might wish to have a full account.—STANLEY L. ENGLAND, Falmouth.

FRUIT PESTS—HOUSE PESTS.

In South Africa the success of orchards there where oranges, tangierines, apples, pears, peaches, etc., are grown, has been seriously hampered by the presence of the Fruit Fly, *Ceratitis capitata*, which deposits its eggs on the ripening fruit, which produce maggots, which utterly spoil the fruit for consumption. Of late years experiments are being tried to keep these pests in control, and the most effective mixture for doing this has been found to be by using poisoned baits. The bait is composed of a mixture of sugar or treacle, arsenate of lead, and water ; this is sprayed on to the trees with a fine spray, so that innumerable small drops fall on the leaves. The fruit fly is very fond of sugar and takes this bait readily. It costs 4d. per tree to do this, and spraying has to be done several times in the season. Besides the fruit fly, a number of other flies feed on this bait, including the obnoxious house fly.

This poisoned bait is thus of great importance, as the house fly is at times a great nuisance in houses, shops in both town and country and is always a source of danger. House flies do not breed in the house but in filth in the stables, gutters, outhouses, etc. From this situation they work their way into the house, and attracted by all sweet stuff, sugar, sweet cake, pudding, and palatable liquids like milk, feed on these, and thus spread disease. The house fly is now known to be the special distributing agent of enteric or typhoid fever.

Any form of arsenic mixed with sweet water, will attract house flies and poison them. Anyone setting down saucers or plates of this poison for insects, should take care to set them on a high table or shelf where no domestic animals may get to them.

Life is one constant struggle for existence ; and even as animals are in constant warfare one against the other, so has man to be constantly on the alert against enemies to his health and comfort.

The "too-much-trouble-theory," will mean to the said theorist very much greater trouble in time, and unfortunately may also bring trouble on his innocent neighbour, who has always bestirred himself.

We have been particularly fortunate in Jamaica in having no great enemies, owing to the fact that this is an island and isolated from others. Our greatest income is obtained from bananas, and marvellous to say in the history of horticulture or agriculture the banana has no pest here.

There is not another fruit-growing country in the world where the greatest efforts have not to be made to keep down pests. This is what a fruit farmer in England has to do—he states as follows :—"I spray my apple trees in April for Psylla, in May for Caterpillars, and in June for Aphis, later using Bordeaux mixture to certain varieties of my apple trees, which are prone to canker and black spots. I still spray for Aphis later."

For the sake of our own well-being, every householder should keep up a constant warfare against rats, which carry fleas and thus

disease, by setting traps, poison, using virus, and training cats and dogs to be good hunters and ratters. He or she or both must set fly poison just as regularly, in the way mentioned above.

We may say that this fly poison is also taken by ants, both stinging ants and red ants, so that it effects more than one good object. A successful poisoned bait for fleas would be a most useful thing. For the sake of the perfect success of our plants, no effort should be spared to wash or spray scales on our fruit trees, to use Bordeaux mixture on cocoa and coconut trees and so on. For the health and success of our animals, ticks should be kept off our cows, lice from the goats, fleas from the dog, and no information on the subject that could help on successful effort should be ignored.

PLANTING PARA RUBBER SEEDS.

THE following is a letter, dated 7th May, 1909, from Mr. Ridley, Director of the Botanic Gardens, Singapore, to Mr. Craig :—

"I am sorry you had so poor a result from the rubber seeds. The season is over now, and no more will be procurable for some months, but when they are we can send you some to make up. Are you sure you planted them right, soaked in water for a day, and not planted beneath ground? *Do not use* bamboo pots in future. It is never satisfactory and very rarely indeed requisite. I know it is often done, but I have seen very bad results from it. Plant in a bed, and move the young plants out when ready, you cannot properly water seeds in a bamboo pot. We never use them at all for anything."

[Our paragraph under "Comments" *re* the use of plaited baskets instead of bamboo pots, in last number, page 302, referred to this. Both paragraphs should have come together.—ED.]

DOGS.

THE dog although a very useful domestic animal, is one very much neglected and maltreated. The horse, the mule, and the cow all receive a certain amount of attention, all have their requirements in the way of food and water more or less carefully attended to, but the dog is not taken into account either as regards his feeding or the supply of water, or a sleeping place or cleanliness. Horsekind are attended to otherwise they would not be able to work, cows receive some attention or they would not produce a good calf or fatten, but the dog although neglected still can bark and bite, and catch rats and mongoose, so being able to do particular work on the no food principle, he does not get his food very regularly but is often left to find it for himself.

Some few people keep dogs solely as pets, but the majority of people keep them as watch dogs and to keep down vermin. The dog is just as necessary to the agriculturist in his way as a horse or cow, and is usually faithful to his owner. Yet it is a miserable sight

to see so many dogs kept about the country that are not fed regularly, hardly fed at all indeed, and are obliged to live on what carrion they can pick up or what they can steal. They always look lean, miserable and hungry. Dogs like other animals, including the human, require regular meals, and they should be fed two meals a day, a small meal and a big one, at regular hours. It is not enough to give a dog a bone which has already been well picked, occasionally, perhaps not more than two or three times a week, and occasionally a piece of yam or some sweet potato. If people will not feed dogs then they should not keep them.

Some dogs are well-fed on cornmeal porridge regularly without any change except an occasional bone. Then they are apt to suffer from skin diseases, and are tormented with a constant itch. Whenever this is observed cornmeal should be dropped for a while and the animals fed on a thick soup made from a small piece of cheap meat, boiled with vegetables. The best vegetable for this purpose is callaloo. At the same time a dose of a dessertspoonful of castor oil or a full tablespoonful to a large dog should be given. A pinch of sulphur in the food every day for a week also helps to cure skin diseases of any kind. Too much flesh meat will also have the same effect. Then the diet should be altered. Any monotonous diet seems to cause skin disease in dogs here.

We appeal to dog owners to give some thought to this valuable domestic animal. In the larger towns a tax is paid on dogs, but not in the country. They would be better looked after if there was a small tax, as it would be necessary then to fix the ownership of dogs and so somebody would be responsible for the mangy looking animals that sometimes range the countryside eating eggs, fowls and rabbits, and thieving anything in the way of food they can lay their teeth on. Then each dog would have to wear a little tin label on the collar to fix its ownership.

We find it a very common thing for puppies half-grown to doghood to have fits. In nine cases out of ten this is caused by worms, and a dose of castor oil recommended above will be enough to show conclusively whether the dog does suffer from worms. As a matter of fact the ordinary country-made castor oil, besides being purgative, is also a useful vermicide, and a dose given once a week gets rid of worms. The special specific, however, for worms is arecanut. There are a variety of worms found in a dog, but they can all be got rid of by the same treatment. As much powdered arecanut as will lie on a threepenny-piece should be given in a little milk, and followed by a dose of castor oil an hour after. In a week another dose of oil can be given. There is also the bark of the pomegranate root made into a powder—one teaspoonful being a dose. This is also a fine vermifuge for tape worms.

To clean silver a little kerosene added to the cloth that is dry whitened will help wonderfully.

POULTRY NOTES.

We have often written of the most common diseases poultry are subject to in Jamaica, but owing to the number of inquiries we get on the subject, and the difficulty most of those find who keep poultry, especially beginners in the business, not only in treating troubles but in recognising the first symptoms of disease, at the time when the trouble can be treated most effectively, we give some hints from long and intimate experience in handling fowls—our own and others—here. The cause of a disease also seems often to puzzle many country poultry-keepers. We shall attempt therefore to describe shortly and simply and as clearly as possible in a short space, causes, symptoms and treatment of diseases of poultry here.

The various forms of roup are the most common troubles. All forms are caused by cold, and just as in the human this may take a simple form like ordinary catarrh, or develop into influenza; so, common cold in fowls may develop into canker or bronchitis, and even consumption, as unfortunately tuberculosis is not uncommon in fowls here. All forms of cold are most often caused by sudden changes from heat to cold—thus if fowls are confined in a basket or box travelling and breathing foul air, or get heated up by being packed too closely together, then are allowed to run outside, and roost in a tree, this is enough to give some of them a dose of cold. Then if after a spell of dry, hot weather, heavy rains come on, to which the fowls are exposed when roosting on a tree, usually there will be a crop of colds the next day, and the more highly organised the fowl is,—the more sensitive she is, the better layer she is, so that there is a bigger drain on her system, the more susceptible she is to changes of atmosphere and so to colds.

The first symptom of roup is usually water running at the nose, or watery eyes, or both. Whenever these symptoms are seen, the smallest pinch of permanganate of potash (a 3d. worth can be got at the chemist's, which will serve a long time) put in a pint of water, makes a splendid disinfectant. Jeyes can be used also with effect, but should not be used where the eyes or any sensitive parts, have to be treated, as it burns. Permanganate of potash makes Condy's Fluid, and does not burn. This should be used to wash out the eyes and nostrils, gently laving the water into the eyes and gently pressing the nostrils. When the nostrils are pressed some of the roupy stuff comes through the roof of the mouth, and the forefinger, or if the forefinger is unusually large, the small finger should be dipped in the antiseptic and the mouth also cleaned out.

In purchasing fowls one of the first things to be done after looking to see that the skin is not dull coloured, which denotes age, but pink,—even showing through yellow-skinned birds—which denotes youth, is to smell the mouth of the fowl. The distinct smell of roup can always be perceived if the fowl has it. As roup is very contagious it is necessary not to let the fowl loose among the others, if it is suffering from this trouble. We have

:nown a whole flock to suffer from a severe form of roup simply 'rom the introduction of a fowl suffering from a slight form of it. ?ossibly the new fowl in drinking out of the same dish of water left he germs, which entered the other fowls, and then some favouring ircumstances, which would not probably have affected the fowls if hey had not been infected, brought on an attack of roup. If the imple symptoms described, are neglected, the nostrils and eyes will ;et choked up with yellow-white, foul smelling matter. If still ıeglected, one or both eyes may become swollen and inflamed, and he fowl will go constantly scratching at them. If of good constiution, the bird may simply lose the eye, eaten out by the roup, or nay die, and if opened it will probably then be found that the lungs ıave this same whity-yellow roupy matter about it, which seems to ıe of a tuberculous nature. The treatment in the severe form is the ame—continue washing out with permanganate of potash and water, ıut all round the eyes can also be painted with tincture of iodine hich reduces the inflammation.

We have cut open the roupy swelling on a turkey's eye and aken out almost a teaspoonful of foul-smelling roupy matter, then rashed out the cavity, rubbed in healing oil, and the bird got beter. Turkeys take roup badly and when the swellings are not atended to in time and get large, cutting into them is the quickest nethod of getting rid of the roup.

If only a few fowls are to be dealt with, they should get half a easpoonful of castor oil each twice a week, and at the same time psom salts (a tablespoonful to the pint of water) should be put in he drinking water and so given to the other fowls to prevent the rouble spreading. A sick fowl should, of course, be kept apart; ad cases of roup should be killed and the carcases burned. A pinch f sulphate of iron should also be put in the drinking water daily or a week or two.

2. *Canker.*—A bad form of cold is canker. It may exist along ith the other symptoms mentioned above, or may happen alone. 'he same foul smell will be perceived in the breath of the fowl, and f the mouth is examined little white specks will be seen in the nouth and on the tongue, this can be picked off with a match stick ipped in a strong antiseptic, and the mouth washed out as above.

Diphtheric-roup is a still more virulent form of cold. Foulmelling, cheesy-like matter spreads down the windpipe, and the owl in this state we are afraid suffers from tuberculosis or conumption and should be killed at once. This disease is exceedingly atching, through fowls eating food in the same place and by drinkıg the same water, or even simply by contact. The germs are ven in the ground in the droppings, and in the air, so that breathıg the same air in the fowl-house if the fowls are put up at night ıay spread the trouble.

4. *Tuberculosis or Consumption.*—When fowls are wasting way from no apparent cause, they should be killed at once, as I do

parently recovered from this, but the lungs have been attacked and possibly the liver. When a fowl is killed from disease it should not be flung down for "John Crows" or dogs to eat, it should be burned.

5. *Bronchitis.*—Sometimes a fowl has had none of the symptoms quoted above, but suddenly develops a rattling in the throat; this is caused by a sudden change such as a hot day followed by heavy rains during the night on fowls exposed to the weather—the effects are shown in this form of cold instead of any of the above symptoms. It is especially common after fowls have been travelling in a confined box and then let loose to roost in an exposed place, exposed to the night air. Dose with half teaspoonful of castor oil and wash out the mouth with permanganate of potash, then paint tincture of iodine on the throat morning and evening.

As in human beings, fowls may live a fairly long life suffering from this trouble, their breathing only is impeded, and it is not infectious or contagious like the forms already described. It may also be got rid of by the tincture of iodine treatment, yet under favouring circumstances, come back again. We do not think that a tendency to bronchitis is often inherited, as we have closely watched a particular hen—a crack layer—that has suffered from it for a long time, and kept the progeny separate; these have in fact the best constitutions that any of my poultry have. But fowls that suffer from any other form of cold should not be kept for breeding.

FLIES ON CATTLE.

Last year we received from St. Elizabeth letters complaining about a serious plague of flies which attacked cattle principally about the forequarters where the cattle could not reach them. From the description we thought these to be the horn flies common in the Southern United States (see Journal for February, 1909). We recommended the same treatment as for ticks. We have, however, no dipping tanks for cattle so as to treat them against all pests and parasites, economically, nor has spraying cattle been taken up, although it would be an economical and efficient way of treating large herds. There only remains, therefore, the treatment by hand-rubbing as done for ticks. The wash used in the United States consists of an emulsion of petroleum and water—80 gallons oil to 20 gallons water, with the addition of 5lbs. soap made into an emulsion. This is in effect almost the same as the emulsion used for orange trees except that the petroleum is cheaper than the kerosine. The effects of this spray or wash remain on the cattle for over a month. There is, however, what is probably a better insecticide available.

The Director of Agriculture is the inventor of an effective insecticide, to which he has given the proprietary name "Paranaph." This was found most effective in England, and consisted there of paraffine, naphthaline and soft soap made into a paste, from which an

emulsion could be easily made by the addition of hot water. From experiments made at Hope, this has been found to be very effective against ticks and probably will be equally effective against all insect life. This preparation is sold in paste form (like soft soap) at 2d. a pound wholesale, and any who wish to use it can apply to the Island Chemist. Small quantities as samples for tests may be had from this office at 3d. per pound post free.

SEASONABLE HINTS.

It will take us a long time yet to recover from the effects of our two-years' drought on agriculture, but there is always a silver lining to the cloud.

We feared that when the drought did break, we would have torrential rains causing floods, and damaging cultivations, roads and property generally. Instead we have had fine steady rains in all parts, not exactly made to order in some places, but satisfactory over three-fourths of the island. And with hurricanes round us and just shaving us, we have distinct cause to be thankful as a whole, and to be sympathetic towards the few portions of the island that got breeze enough to cause some damage. It is curious, however, that several parts have not yet had rain enough—part of the coast line of St. Ann had only 12.86 between 1st February and 31st August. The period from July to September is trying enough with hot weather, but when to this is added constant anxiety about hurricanes, we all feel relieved when September goes out—the danger time is passed and cool weather arrives. There has seldom been finer planting weather than we have had in August. July too instead of being very dry as it is nine years in ten, was showery; instead of being a trying month to all our crops—young bananas and cane, oranges and coffee already three-quarters fit, and the well-set young cocoa pods, these were all highly stimulated. As a result oranges are early, coffee promises a fine full crop, but cocoa only middling well, not so well as we looked for—there are many and increasing troubles with cocoa trees, necessitating special attention and experiment. Young pods drying up and dropping has been a common trouble. The young bananas have luxuriated in the sunshine, heat and moisture, so much that many ratoons promise to be too early, and the plants that looked to be very late now promise to yield the 'spring' fruit aimed at. In all sugar districts the young canes look glorious, and in St. James, Vere and Trelawny, dry weather again can hardly hurt them this season should it ensue.

Corn has come in plentifully, so have peas and beans, and large plantings are being made since August and September, and although ground crops—yams, cocoes and sweet potatoes did not bear as well as was hoped for, still the new crops are going into the markets now plentifully. There is in fact an abundance of breadkind in the markets, and with a large breadfruit crop and green bananas competing, provisions are now cheap.

Owing to July Journal being late it has kept back August and September Journals, and many people have expressed disappointment that the useful hints in July did not reach them in time to benefit fully by them. It is not too late to make further plantings of corn and peas up to October.

We have good selected seed corn at 3d. a quart and we have cowpeas and black eye peas. We have some Canadian Wonder beans on hand, also guinea corn, sorghum and alfalfa (for green forage). Our small settler friends should plant all the food crops they can manage by steady work to keep clean. They have had hard times, and much harassment

pay for planting, but there is promise of bountiful crops now, and further advantage should be taken of the good seasons to plant as much as can be kept up. The weeds spring apace in such moist, hot, weather, but when a dry spell comes in, the hoe and cutlass should be immediately laid against the weeds.

Half the battle is in doing things at the right time. All food crops have been scarce and dear for two years back, and so, more imported foodstuffs have been used than has been good for the growers of the country. Small settlers must bear closely in mind that *they* are the producers of foodstuffs here, and that the duty on cornmeal, flour, beans, etc., is a protective duty in favour of their yams, cocoes, sweet potatoes, etc.; that cheaper flour, cheaper cornmeal, would probably hurt them, for it would make their yams and potatoes sell cheaper too.

This ought to be understood when the subject of cheap foods is discussed.

VEGETABLES.—Our supplies of vegetable seeds will be ready early in October. We shall also have good seed potatoes; but those who want these must order early. All kinds of vegetable seeds can be planted in any part of the island in the beginning of November, after the heavy October rains—if these come according to precedent —are over. But those vegetables which must be transplanted, like cabbage and khol rabi, can be planted now. The soil should be prepared *now*. The land that is to grow the vegetables should be turned up with a foot-fork, and left to lie in the rough, especially if it is stiff soil, when the rain, sun and breeze will soon make it crumble down easily. When working it the second time work in fine manure. Then when the soil is fine and well manured, beds should be made. We like to make them so wide that we can reach the middle easily from either side to weed with the hand, and four feet allows of this. Shape the beds four to six inches higher than the paths between, which in gardens not meant to be permanent need not be wider than to allow room for one person to walk.

Rake the surface of the beds level (no garden can be properly prepared or worked without a rake) then smooth down firm with a board or back of spade.

Turnips, carrots, radishes, which should not be transplanted, should be sown thin in shallow drills leaving enough room between the drills to work with a small rake say six to nine inches; cabbage seeds can be sown wide-spread and raked in.

When difficulty has been found in getting a good stand of vegetables, the following course secures germination if there is any life in the seed at all: After firming the bed, rake the surface over a little rough again; then sow the seed, press down with a board, and sprinkle the surface with a mixture of fine earth and wood ashes half and half.

TOBACCO.—August and September are the months to plant tobacco seed in nurseries. The ground for a tobacco nursery makes one of the exceptions to all our planting operations inasmuch as it must be burned over. Spread bush over the piece of land chosen which should be light and yet loamy, as can be got; when the bush is thoroughly dry burn it: then turn over the land, and make the soil as fine as possible, then firm down the bed with a board or the back of a spade, and lightly rake it again to make it a little rough at the top, but firm below. Mix the tobacco seed with some light soil, and wood ashes and sprinkle on the surface; firm down again then sprinkle fine earth on the bed. In this way every seed has moist earth pressed round it, which insures the germination, and the tender rootlets immediately find their feeding ground.

If the earth is left too loose many seeds, after a shower, slip down crevices, too deep in the soil to grow; others die off when they germinate especially if the weather is dry, as the roots do not immediately come in close contact with earth.

This way of planting applies to all fine vegetable seeds as well.

COMMENTS.

BOARD OF MANAGEMENT.—As there was no pressing business in hand for September, no meeting of the Board of Management was called. The next meeting will be held on October 21st.

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PARANAPH.—A misprint in JOURNAL July made the cost of this stuff 7d. per lb. instead of 2d. It can be had from the Government Laboratory at 2d. per lb., and it is intended to get it stocked by local merchants and retailed at 3d. It is an excellent mixture for killing fleas on dogs and in houses. It is soft soap with which kerosene and naphthaline are incorporated. A leaflet will soon be ready explaining all about it and its uses.

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VEGETABLES.—Now that the season for planting vegetables is coming on, anyone who has not secured a copy of the little book: "Suggestions for School Gardens," by J. R. Williams, Esq.—who has now been appointed Superintending Inspector of Schools—should get a copy at once; and read the pages devoted to the preparation of gardens, and the growing of vegetables.

This book can be had from this office, price 1/- post free.

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FUNGUS DISEASES OF COCOA.—A pamphlet has been issued by the Department of Agriculture, Hope Gardens, dealing with the diseases of cocoa trees. The pamphlet contains most useful extracts from another pamphlet written by F. A. Stockdale, of the Imperial Department of Agriculture—before referred to in this JOURNAL.

Everyone interested in Cocoa should have a copy of this new pamphlet, which can be had free from this office, or the Department of Agriculture, Hope Gardens, Kingston P.O.

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CASSAVA.—The trouble with many correspondents discussing the question of the price of cassava, is that they are too local—what may be the position in their locality and just at the moment, necessarily must be the general standard. They do not look around, nor look back over average years.

Then again, we should not figure on what may be got from an acre of cassava peddled out in the field in small quantities over a period of six months, but what may be got *per acre per annum*.

A correspondent writes us that the other day in the open market, he bought cassava at the rate of 1/9 per cwt., in a time of scarcity too.

Prices may vary comparatively close by. Breadfruits for instance sell at the sea coast in one district at three for 1½d. and six miles inland at fifteen for 1½d. Cocoes at the sea five or six for 3d., nine miles inland at 20 to 25 for 3d.

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SHOWS.—The next Agricultural Show to be held will be at Malvern, under the auspices of the Santa Cruz Agricultural Society.

Malvern is a fine centre and the competitions are open to the whole island. The 9th of November is a public holiday.

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POTATOES.—We can take orders for barrels of potatoes up to the 9th October. The land should be prepared now for the planting at the end of October or the beginning of November. Select a piece of rich soil, or if you have only ordinary soil available make it rich with manure. Guinea grass roots turned over and allowed to rot make good manure for potatoes, and old pasture land turned over and the soil allowed to rot also makes good potato soil.

The land should be forked deeply, and this can be done in big clods, leaving the ground to lie in the rough when the sun, rain and breeze will soon weather it and leave it crumbly.

For the information of those who have not had previous experience, we shall give a few notes on growing Irish potatoes in the next JOURNAL. Meantime get the land turned over and manured.

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RUBBER.—Twenty years ago rubber-planting was considered a joke; now, there are millions of pounds invested in growing rubber. The price per lb. has gone away up and down; three years ago it was as high as 6 4. then it went down as low as 2 3, and now again it has soared to 8 —a record price. In the month of July no fewer than 24 new rubber companies were registered in London, but it is a mistake to suppose that because certain plantations have been exceedingly successful, that every plantation without regard to soil, altitude or exposure in the tropics, must necessarily be successful.

Very large dividends have been paid by rubber companies doing business in Ceylon and the far East, as high as 80 per cent. The Valambrosa Company of Edinburgh, with a share issue of £50,000, has returned £95,000 in dividends, and was paying such dividends before the late rise in rubber; in fact dividends of 50 to 80 per cent. were paid when the price was at its lowest. But these are exceptional results.

The average yield of one estate is put down at 7lbs. per tree. Another company with 23,040 acres under rubber, planted at various distances, report the best results from trees at a distance of 27 x 27 feet. The trees of this plantation averaged a yield of 4lbs. each or 300lbs to the acre.

Castilloa Rubber has been planted here more than Para, yet there are at least two distinct varieties of Castilloa, one yielding largely and the other poorly. Those who plant must take care to get the right variety. We shall have an article in the next JOURNAL showing the different yields, taken personally by a member of the Society. This is most important.

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CONDITION POWDERS.—Just as most human beings find their [illegible] palatable from the use of salt, pepper and various

sauces, so the use of an attractive condition powder can make food more palatable to live stock, as their food has a monotonous sameness about it. These condition powders can also serve as a medium to convey useful tonics and medicines generally, in an easy way to the animal. There are many of these condition powders before the public now. There is one, however, advertised in this JOURNAL, which has lately been introduced to the island, and which is sold by Mr. H. R. Beckford, 176 Orange Street, Kingston, which honestly states the ingredients of which it is composed on the label of the box. This is Wilbur's Stock Tonic and it can be used for cattle, horses, pigs, goats, sheep, and poultry. A trial should be given to it.

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SUGAR FOODS.—All animals are fond of sugar, even omnivorous animals. The human animal, as a rule, is passionately fond of it.

Where sugar foods are available, as on any sugar estates in the tropics, the working stock are fed largely on foods containing sugar, such as chopped cane, or the molasses. In the north molasses from sugar refineries (treacle) has been so used; but this was a very sticky and unsatisfactory stuff to handle although it was found a useful food. Now sugar is fed in a better form. In the proprietary article called Molassine, advertised by Wessels Bros. in this JOURNAL, molasses from sugar refineries is incorporated in a particular kind of peat moss, which is highly antiseptic; and this foodstuff has come to be widely used.

Another proprietary article called Molascuit, is not quite the same. It is made in Demerara. from sugar cane molasses direct from sugar estates, incorporated with the pithy part of the sugar cane, which exercises some mechanical effect on the digestive organs. Mr. C. Reid Campbell is the agent for this. It is also a good form of sugar food, and is being widely used.

Both of these are convenient substances to handle, are palatable to stock, and as food and condiments combined, exercise a beneficial effect.

Try them both and choose whichever you find most suitable.

BRANCH NOTES.

Fair Prospect (Portland).—A meeting was held on the 21st August, 1909. Present: R. H. Elworthy, Esq., J.P., President, in the chair. Ten members, two visitors, the Agricultural Instructor, Mr. Waites, and the Secretary were present. Meeting opened with prayer led by Mr. Munroe. Minutes were read and confirmed. Correspondence was dealt with. Letters from Mr. W. Cradwick *re* agricultural forks were first dealt with. The Secretary here stated that he had paid to Mr. Cradwick 23/6 for purchasing of forks and 6d. on carriage. A Committee to manage the fork business consisting of Messrs. Buckly, Munroe, Panton, Ellison and Burke, was appointed, three to form a quorum. The assistant Secretary and second Vice-president here came in. Letters from Mr. J. Barclay, Secretary of the parent Society, and also from the Travelling Instructor,

were next dealt with. The following new members were elected: Duke Brown, John McKenzie, David Engleton, Daniel Hazel, Ernest Brooks and L. A. Wates, all of Priestman's River P.O. It was noticed with regret that no answer from the Director of Agriculture on the resolution *re* seedling canes, has been forthcoming, and the Secretary was accordingly instructed to enquire into the matter. The new Agricultural Instructor, Mr. L. A. Wates, was then asked to give his address. Beginning with the experimental plot, Mr Wates thought the best method would be for every man to have the experiment on his own field, as then the proceeds would be the owner's. The lecturer stated that an experimental plot on his own property would not serve the purpose. The Prize Holdings Competition next came in for a share of the discourse, the lecturer explaining the rules and encouraging intended competitors. Mr. Wates wanted to know if members of this Society would like to have the service of the Society's stallion "Sir Gerald." Many members spoke on the subject and the matter was left in the hands of the Secretary to send up to Mr Wates the names of all prepared for the business, the number to be guaranteed from this section being 15. Two notices of motion from Mr Brown were received. Adjournment of meeting to 18th September, 1909.—L. Z. Buckley, Secretary.

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Pedro (St. Ann).—On the 9th August, a very successful meeting was held by this Society at the Waltham Baptist Chapel, for the purpose of organising a Young Peoples' Improvement Society. The meeting was presided over by Mr. W. J. Francis, who outlined the scheme and features of it, and left it open for discussion. After several of the members present had contributed their quota of discussion, the resolution was put to the vote and carried *nem. con.* The following officers were then elected: Mr. E. Crosskill, President; Mr. W. J. Francis, Vice-president and Secretary; Miss Lilian Francis, Treasurer; and Mr. T. A. G. Small, assistant and reporting Secretary. Meetings were arranged to be held every fortnight, when the members of the Society would be tutored in music, how to debate, and theoretical knowledge of the principles of agriculture, as no one can be a member of the Improvement Society who is not a member of the Agricultural Society. Hence the Society is now called the "Pedro Branch Agricultural and Improvement Society." The members of this Society take a keen interest in it and endeavour to attend as regularly as possible. Since the organisation of the Society, two very successful meetings have been held. The first came off on the 26th of August and was well attended. At this meeting the minutes of the last meeting were read by the Secretary and confirmed. Members bringing forward their subscriptions were enrolled, after which a paper on the principles and theory of agriculture was read by Mr. T. A. G. Small. This paper was largely commented on, and many valuable hints added by members. After matters dealing with agriculture had had its fair share of attention, a song was taught from the blackboard, using sol-fa notation. Members were then requested to purchase each a Stimpson's class singing book, from which they will be tutored, so that in the near future staff notation may supersede the sol-fa notation, and a knowledge of the theory of music acquired. After miscellaneous matters had been dealt with, and the fixtures for next meeting arranged, the meeting terminated with the singing of the National Anthem and Benediction. Our next meeting was a very successful and interesting one, which came off on Wednesday night, September 8th inst. The meeting was well attended. The President occupied the chair and gave a very encouraging opening address. After his address the meeting took the following routine: (1) Minutes of last meeting were read by Secretary and confirmed. (2) Enrolment of new members, when 14 new members were enrolled (3) Another paper on the principles and theory of agriculture was read by the assistant and reporting Secretary, accompanied with the list of Agricul-

tural Don'ts published in "Agricultural Practices and Morals." Miss Beckford contributed a very well rendered recitation, and Mr. W. J. Francis gave the reading entitled "The Discontented Pendulum." Everyone was very much amused, and a vote of thanks was proposed, seconded and carried for the reader. Another song was also taught from the blackboard. After the fixtures for next meeting were arranged, meeting *terminated with singing of National Anthem and Benediction.*—F. A. G. Small, Assistant and Reporting Secretary.

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Giddy Hall (St. Elizabeth).—A meeting of this Branch was held on Friday afternoon, August 20th. There was a fairly good attendance. The great interest of the meeting was centred in a road to be made through Johnstone Common and Hampstead to Newmarket. Kind permission has been received from Dr. Crooks, owner of Whitehall, and Mr. Isaacs, the attorney for the Rev. Spencer Smith, owner of Hampstead, to commence work on the road. This news gave great satisfaction, as the road will be a great boon to the settlers in these districts. It is unfortunate that many members have fallen behind with their subscriptions, and many names had to be deleted from the list, but *per contra* we had some new members to enrol. A letter from Mrs. Bourne was read by the Secretary; she is asking for the co-operation of the members in encouraging kindness to and putting down cruelty to animals. The members expressed their hearty sympathy with the movement, and instructed the Secretary to write and invite Mrs. Bourne to attend a meeting of our Society and give an address. The burning question of the day naturally cropped up—of course I mean cassava. After a lengthy discussion, it was unanimously agreed that it is impossible to sell cassava at 1/- per cwt., and the present price being 3/6 per cwt. in the field. In our district, cassava never sells for less than 2/6 per cwt. Then there was a lengthy discussion on cane, bananas and other topics. Ours is not a banana district, and we would welcome the old staple product cane, as it would give employment to hundreds. The meeting was then closed by the President with the Benediction.—G. L. Maxwell, Secretary.

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Trinity Ville (St. Thomas).—The regular monthly meeting of this Branch was held in the Church of England Schoolroom on the 20th August, 1909. There were present the President, Secretary, Agricultural Instructor, 36 members and 10 visitors. The minutes of the previous meeting were read and after a slight amendment, confirmed. Arising out of the minutes, a letter was read from the Parochial Board stating that it has decided to recommend Emily Dacres to the S.M.O., but before doing so the Board requires an undertaking from her to reside in the Bay Valley district. The Secretary stated that he wrote Miss Dacres to the effect, to which she complied, a copy of her letter was also read. The following resolution was unanimously carried on the motion of Messrs. Wint and W. G. McLean: "Resolved that the Parochial Board be thanked for recommending Miss Dacres, the young woman appointed by this Society for admission to the Lying-in Hospital." The following new members were enrolled on motion of Messrs. Edman and W. G. McLean: Messrs. M. J. Donald, Henry Hall, L. P. McQueen, Andrew S. Bogie, A. C. Chaplain, W. P. Grant, Thos. McPharlane, Chas. Mannings, A. Davey, Thos. Cooper, Mrs. Jane Ford, and Elder H. Fletcher. Subscription received from 10 members. Correspondence was next dealt with. Mr. Barclay wrote deprecating Branch Societies taking too keen an interest in affairs that are not closely related to agriculture—referring to trained nurse. The Secretary said he wrote explaining the matter; a further letter was also read thanking the Secretary for the explanations afforded, that the local Society was the only organised body in the district to undertake such matters. The members, however, thought Mr. Barclay should not have written about this as the members themselves had felt the want of such a person. The General Secretary also replied on the subject of the loans to

be considered by the Society. He further wrote Mr. Briscoe fixing the time for the judging of the Prize Holdings Competition to begin on the 2nd November. It was already agreed to commence the second week in November; the Secretary was directed to point it out to him. Letters were also read from Mr. Briscoe. Mrs. Bourne, hon. Secretary Society Protection of Animals in Jamaica, wrote Mr. Briscoe asking for the co-operation of the Society. After Messrs. Wint, Marchalleck, Briscoe and the President had spoken on the subject, it was unanimously agreed by the members to do all they could to help on the work. *Re* loans, the following resolution was carried by a majority of 30 on the motion of Messrs. Spleen and Kelly: "Resolved that a certain sum at the discretion of the Society, be loaned from the funds at the credit of the Society to reliable members at the rate of 10% for a period not exceeding six months." A lengthy discussion followed. Resolutions were passed dealing with the loans, the total amount available to be loaned being £15, and of this amount £2 will be the maximum any one member could get, applications to be considered by the Managing Committee. Next on the agenda was consideration of candidates for the Parochial Board. The President spoke at length, calling attention to the condition of the roads, the system of affording relief to the poor, etc. All these he said, needed looking after. Mr. Wint also spoke on the Board in general. Messrs. Edman and McLean, members of the Board, were called upon to speak on the subject and they did so. The candidates then selected were Messrs. Carr, Jas. Spleen, R. J. McLean and Edman (the two latter present members). The Travelling Instructor next gave a discourse on the Prize Holdings Competition, explaining thoroughly the way in which it is to be worked. He was listened to and followed with interest. A few questions were asked him which he answered. He received the usual vote of thanks. Mr. J. F. Anderson gave notice of motion on the hour of commencing the meetings. Meeting then adjourned.—J. T. EDMAN, Secretary.

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South Manchester.—Annual report. The officers of the past year were: President, Rev. R. Johnston, M.A., B.D.; Vice-presidents, A. C. L. Martin, Esq., Hon. G. W. Fitzherbert, J. S. Nicholson, Esq., H. Ward, Esq., Revs. W. J. Shaw and J. W. Grant; Secretary and Treasurer, H. S. Lynch. Membership: the total number of members who have conformed to the rules of the Society is 128. This shows a decrease. Something should be done during the ensuing year to get members and others to take a more healthy interest in the affairs of the Society. Work done: The Society has been very energetic during the past year, and its influence has been exercised on several important occasions. The savings bank, which was opened in November under the auspices of the Society, has been very successful in its operations and has proved a boon to many. There are branches at Plowden, Ebenezer, Victoria Town, and Grove Town. A branch was started at Frankfield and gave promise of supplying a real want, but unfortunately it had to be closed owing to the difficulty of getting a suitable person to manage it. The total amount deposited is over £62, and withdrawals £2 12s. A separate statement *re* the financial position of the bank is attached. The manager is not quite satisfied that full advantage is taken of the bank and all those who have not opened an account with it yet are urged to do so. The English-bred he-goat purchased for five guineas, has already received an amount of patronage which fully warrants the expenditure on him. He arrived in December in a very poor condition, but has made remarkable improvement. Sixty-five nannies have been served by him. The rules respecting its management will have to be revised. The Society organised and supervised a class for the making of jippi-jappa hats. Twenty-four girls took advantage of the opportunity offered them, and although it was not quite as successful as it might have been had more money been expended on it, yet the mere initiation in the art of hat-making will be helpful to the young women. We have had discussions on the cultivation of tobacco,

cassava, and some minor products, and it is hoped that the Society may be able to aid in the permanent establishment of these industries. It seems necessary to have the position of the Sub-branches in relation to the South Manchester Agricultural Society fully defined so as to avoid any misunderstanding in the future. Work to be done: The Society should aim at holding a show at no distant date. Agricultural Shows have proved very successful in stimulating planters to greater effort and improving their cultivations in many parts of the island and we should not be slow to avail ourselves of some of the benefits we are likely to derive from the show. To improve the breeds of pigs reared and to encourage the rearing of pigs we ought to purchase an imported boar. This we can do if we will only unite. Now that we have an Instructor entirely for these districts, the meetings ought to be held more frequently so as to utilise his services as much as possible. We hope to do more this year now that we have an experiment plot. During the past year the Society has had the unpleasant duty of having to make a firm stand in refuting some damaging statements made about the peasants of South Manchester. How far the Society was right time will show. We should rally around our new Instructor and try to learn as much as possible from him and help him as much as it lies in our power. The Society made some important suggestions to the South Manchester Commission for the permanent betterment of the inhabitants of these districts, and we hope in due time they will bear fruit.—H. S. LYNCH, Secretary.

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Smithville, August 31st.—On receiving information that the Honourable Director of Public Works along with T. Ronaldson, Esq., and the Honourable G. W. Fitzherbert, M.L.C., would visit the district of Smithville on the 25th August, the Agricultural Society deputed Messrs. C. Dove, D. Anderson, A. Russell, R. Pink, G. Anderson and R. Anderson, to await these gentlemen at Thompson Town on the day of their arrival. Despite the incessant heavy rains which fell from Sunday evening, the Honourable Director of Public Works accompanied by J. Barclay, Esq., Secretary of the Jamaica Agricultural Society, J. Hirst, Esq., Agricultural Instructor and Mr. Green of Mocho, arrived at Thompson Town at 3.30 p.m. Owing to the wild weather in Vere, Mr. Ronaldson and Hon. Mr. Fitzherbert, who were to have come did not do so, and the gentlemen mentioned rode on to Smithville, then along the road to the Thomas River Valley as far as Wakefield, thence to Smithville, and then along the Frankfield Road as far as Effort River, within three miles of Frankfield. On their way back they were invited to the Schoolroom at Smithville, where a very large gathering was awaiting them of nearly 400 persons. Mr. Hirst was asked to the chair and he gave the probable reasons for the absence of the Honourable G. Fitzherbert and H. T. Ronaldson, Esq., and introduced Mr. Willoughby. Mr. Edwards presented the Director with an address, to which he suitably replied. Mr. Barclay, who is deeply interested in the island in general and in Smithville in particular, spoke very encouragingly and urged upon the people to cultivate their front lands and not to allow these wayside pieces to lie in ruinate and so give a bad impression to visitors to the district. Mr. Green spoke hopefully of the new driving road, and like Mr. Hirst, expressed his regret for the absence of Mr. Ronaldson and the Hon. Fitzherbert, both of whom are very much interested in roads in Clarendon. Mr. J. Edwards then moved that a vote of thanks be accorded these gentlemen and the meeting terminated with the singing of the National Anthem.—J. A. EDWARDS, Secretary.

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Bull Head (Clarendon).—The bi-monthly meeting of this Branch was held at Mt. Carmel on Wednesday, September 1st. The Rev. A. A. Barclay, President, occupied the chair. The following gentlemen were present: Messrs. Thos. Robotham and Edwin Wright, Vice-presidents; W. P. Wright, Treasurer; the Secretary, J. N. Simpson, and twenty-three

her members and a few visitors. After the meeting was called to or-r, the minutes of the last meeting were read and confirmed. The roll is called and eleven new members had their names enrolled. The Presi-nt explained the object of the meeting and expressed the pleasure of eing so many present at the meeting. He urged on them the necessity attending the monthly meetings as they were of great importance. He iowed that the Agricultural Society was the greatest lever in moving the overnment and hence the necessity of joining them. He referred to an ar-cle published in the *Gleaner* a little while ago showing that we in the Bull ead districts had the most fertile and productive soil in Jamaica, and t we had no means of communication with the Ports or markets owing the vile condition of our so called roads. He felt that the time had me when we should make our voices as taxpayers heard, and be redress-l for the grievances under which we were groaning so long. This, he id, we could do by proper representation at the Parochial Boards. He rongly advised every man who was a taxpayer not to leave a stone un-rned until they had got in the best men into the Board to represent ieir interest and for this particular reason he had called this meeting to ell them that six men had pledged themselves in the best interests of Up-er Clarendon, to go to the Parochial Board to urge on them the needs of he people whom they represent. He then pointed out some of the grave eeds of the people in Upper Clarendon : bad roads, unbridged rivers and istance to the railway. Their planks therefore, if returned were : rail-ay extension along the Minho Valley to Danks, and first class roads. As proof of the disadvantage under which the people of Upper Clarendon iffer, it was shown that one of the roads leading from Morgans through olonel's Ridge, one part of it is a first class road, another part of the ame road is a second class and another part a third class road. This is reposterous ! Such things should be allowed to continue no longer. After lengthy speech the President took his seat and Mr. W. P. Wright em-hasised the points made by the Rev. Mr. Barclay and urged the members o continue in the Society and support it all they can as the Agricultural ociety would put them into society. The President informed the So-ety that Dr. A. W. Thompson of Chapelton, was willing to have a vege-ible stall put up in Chapelton market where vegetables would be sent on aturdays ; because at the present time the higglers from Kingston were ipplying the market with vegetables and as an inducement he has offered give prizes to three districts which are to take up the competition, iz. : Red Hills, Blackwood and Bull Head districts. He has also promis-l to give the seeds free to members of the Agricultural Society who may pply. The matter was taken up most heartily and a hearty vote of ianks was moved for the motion of Dr. Thompson. The Secretary was sked to write Dr. Thompson *re* the matter. The members agreed to sell ieir coffee in a bulk this year at the entreaty of the President. The next atter was the paying in of subscription for the JOURNALS. The local ecretaries were asked to see that the members pay in both last year's nd this year's subscription. The matter *re* the jippi-jappa class which ad been started at Mt. Carmel by Miss Lattibaudiere two weeks ago, as next brought up and the hats that are being made were shown. All ere pleased at the progress that the ladies are making in this direction. he President entreated the members to canvass for as many scholars for ie class as could be found in and around the district, as this was a most ayable industry. He also urged the members to procure plants of the ppi-jappa for planting so as to keep up the industry. It being too late n hour the lecture *re* the "Cane Industry" and the debate on the "Cow nd the Donkey—which is the most payable to invest in," were postpon-l for next meeting, which will be on first Wednesday before the full ioon. The meeting rose at 9 p.m.—J. N. SIMPSON, Secretary.

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Albert Town (Upper Trelawny).—The usual monthly meeting of this Branch was held on the 26th August, 1909. Mr. D. R. Wright, as senior

Vice-president, occupied the chair. He said one of the objects of the meeting was to elect a President, but as there was some difficulty in securing one, he would suggest that the meetings continue to be directed by a Vice-president until the annual meeting in January next when the President might be chosen. The minutes of the last meeting were read and confirmed. Arising out of the minute *re* show, Mr. R. R. Linton asked for the number of qualified members and was answered by the assistant Secretary. The Vice-president thought it is quite time to begin to think of and to work up a show, for a Society could not live without having something of the kind as it is a necessity. Mr. Levy thought a show a necessity. He was of opinion that the members should be circularised and a meeting should be called to consider the matter. He felt sure that the Ulster Spring Branch would be in accordance with the Albert Town Branch holding such a show in 1910. A special meeting will be called to consider the matter. Correspondence: read letter from Mr. Arnett *re* appointment of Mr. H. Q. Levy (Agricultural Instructor), dated 6/7/09. Read letter from Mr. Levy *re* lecture, dated 16/7/09. Read letter from Mr. Levy *re* demonstration, dated 8/8/09, on pruning cocoa, forking and suckering bananas. The demonstration was carried out in the field of Mr. D. R. Wright as per Mr. Levy's letter. Messrs. Wright, Anson and R. R. Linton spoke highly of the demonstration, and said how pleased they were to be there and of the great benefits they derived. Lecture on cocoa by Mr. H. Q. Levy. The Vice-president in introducing Mr Levy *re* lecture, spoke of the fallacy that is sometimes aired, to wit. that the Agricultural Society's Prize Holdings Scheme is only a means of finding out what the people have for the purpose of increasing taxation. After the lecture questions were invited, Mr. Wright asked how to know the different varieties of cocoa. The lecturer suitably replied. Mr. Joseph Campbell asked about manuring the cocoa trees. Reply—Do not heap manure around the roots but fork in manure, beginning two feet away from the trunk, but do not use wood ashes along with animal manure. Next the Prize Holdings Competition was taken up, when several names were given and notice received that February, 1910. is the fixed time. Meeting adjourned.—P. A. Brown, Assistant Secretary.

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Metcalfe (St. Mary).—The monthly meeting of this Branch was held on 18th August. The minutes were read and confirmed. As the attendance at the July meeting was not what it ought to have been the nomination of officers was put off till to-day, when the following appointments were made: Mr. Ellis Hart, Chairman, was re-appointed to the chair; Mr. Jos. Kelly remains as Vice-president. The Secretary is returned to his desk, with Mr. Edward Campbell as assistant. Mr. Charles Wentworth was asked to be Treasurer to replace Mr. Charles Hart, who resigned and handed over the cash. Mr. Henry Davis was registered as a new member. A new Committee was appointed to serve consisting of the Secretary, Messrs. E. Hart, S. H. White (as its chairman), M. Hart C. Wentworth, Jno. Kelly, J. Kelly, Edward Campbell, R. B. Ritchie, G. Hamilton, H. Davis, D. Henry, Charles Hart and Charles Officer. Mr. Charles Hart having resigned the position of Treasurer, returned the money to the Society. The Secretary gave a short account of the show held at Woodstock on August 2nd, 1909. Mr. Ellis Hart moved that a vote of thanks be given to the Secretary for visiting the show at his own expense in the interest of this Society of Agriculture in general. A petition to the Parochial Board of the parish is contemplated. The district needs a road suitable to vehicles. Mr. C. Wentworth complained of mosquitoes and asked for a remedy. A suggestion was made by Mr. R. B. Ritchie that horse dung and sulphur mixed and burnt, will drive the insects away. The Secretary further pointed out that water and plants crowding around a yard so as to harbour water, will do much harm and help to breed insects which are an annoyance to one's comfort and a menace to good health. Mr. S. H. White's complaint was of red ants. He

s told to keep fowls, and also to destroy the ants with Jeyes's Fluid, ked lime, etc., to keep around the house clear of dead leaves and rubh of any kind. The Secretary asked the Society why some animals re-e to suckle their young after giving birth. This Society respectfully ks information of the Secretary of the parent Society. It was moved the Secretary that a Branch of this Society as a feeder, be formed at ck River at an early date. The Secretary gave notice that the affilian fee should be remitted at an early date, so as to keep up our relationip to the parent Society.—S. S. SCOTT, Secretary.

[It is unnatural for a mother not to suckle her young and there must course, be some cause which has to be looked for. It may be that the lder is swollen or painful so that the mother kicks her offspring when it uches her, Or it may be cuts or sores on the teats. In either case the the parts with hot water and then rub in some warmed castor oil. epeat this twice a day until the swelling or soreness of the udder has one. Or the cause may be that the animal is out of condition generally, there may be some internal disease from which she is suffering, the pain which causes her to be indifferent. Sometimes mothers are unnatural nd refuse their young from no cause that can be noted. Anyhow, give drench, then a powerful tonic. The particular drench and the proper nic depends upon the kind of animal. We can give exact particluars n learning whether it is a cow or mare, goat or pig that is concerned.—D.]

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Upper Metcalfe (St. Mary).—This Branch had its regular monthly eeting in the Brainerd Schoolroom on the afternoon of the 25th August. hirty members and a large number of visitors were present. Mr. Cecil brahams of Lewisburgh. was asked to take the chair. After the reading and confirmation of the minutes of the previous meeting, a report of he half-yearly general meeting of the Agricultural Society in Kingston, y Mr. H. S. Schleifer, our delegate, was read. The following were adnitted as new members: Messrs. A. Willis, E. Gowie, Adonijah Robinson, Vm. Hunter, N. Buchanan, E. Rennalls, Z. Bouner, S. Thomas, Jacob Morrison, G. Leckie, James McKie, E. Forster, E. Abrahams, D. Harris, has. Duncan, L. Hyde, A. Smith and the Rev. C. H. Hastings. Then followed a debate on "The Yam or the Banana, which is the more profitable?" Mr. Abrahams, in an eloquent speech, led in favour of the banna, and as he proceeded, the members were convinced that in him we have a powerful helper, one from whom we can learn a great many things relative to improved cultivation Mr. S. A. Schleifer followed in favour of the yam, pointing out that the question for us was not which is more profitable to the island but to us as a district. This has always been an important yam-producing district, but owing to the increased number of acres being taken up for bananas and the lack of any improvement being thrown into its cultivation, the yield of the district is rapidly decreasing and for several years the price of yam has been high and there has always been a scarcity of home-grown foodstuffs during the months of June, July and August. Efforts must be made to remedy such a state of affairs. The debate became general and most interesting but the shades of night were falling and we had to come to a close after proposing to continue the same subject at our next meeting. Mr. Abrahams was asked to prepare a paper on "The proper culture of the Banana," and Mr. Jno. Simmonds on "The proper culture of the Yam." The meeting adjourned.—SAML. A. SCHLEIFER, Secretary.

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Portland Central (St. Margaret's Bay).—A meeting of this Branch was held on the 21st August, 1909, at St. Margaret's Bay. There were present: the Rev. P. A. Conahan in the chair, and 16 other members. After the reading and confirming of the minutes, the following gentlemen were

elected officers of the Branch for the ensuing year: President, Rev. P. A. Conahan; Vice-presidents, Messrs. J. O. Thompson, J. M. Roper and J. D. Wright; Treasurer, Mr. I. S. Williams; Secretary, Mr. R. A. Henry; Assistant Secretary, Mr. R. W. O. Speid. The great necessity for a road from St. Margaret's Bay to Berry Dale, which would be the means of opening up about four or five very fruitful districts, was warmly discussed. It was thought advisable to act on the suggestion of the Acting Governor in his address at the recent show, to whom the matter was referred. A resolution was thus unanimously agreed to that the Hon. A. A. Brown, M.L.C., the representative for this parish, be asked to bring the matter to the attention of the Government and try to use every means possible to secure such a road. The Rev. P. A. Conahan and W. B. Brice, Esq., Secretary and Treasurer respectively of the recent show, reported finally on the success of the show, which showed a credit balance in hand of £6 4s. 6d. This was thought most satisfactory and every member was enthusiastic over holding another show in June next year. It was unanimously agreed to that Mr. J. T. H. Brown be asked to resign as a member of the Society, as his continued membership was considered detrimental to the welfare of the Society. Mr. W. Cradwick next addressed the meeting on the Prize Holdings Competition, to take place in January, 1910. The following gentlemen were admitted members of the Society: Messrs. J. Cooper, J. Valentine, N. Bradshaw, Chas. Bradshaw, S. Mitchel, J. King, and P. Thaxter. The meeting then adjourned.—R. A. HENRY, Secretary.

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Stewart Town (Trelawny).—The regular monthly meeting of this Branch was held on Thursday evening, August 26th. Mr. John Stockhausen presided. The minutes of the last meeting were read and confirmed. The subject of the proposed Agricultural Show for March, 1910, was brought up and further discussed; and for special reasons it is likely to be delayed to a later period. The Secretary read a letter from the Agricultural Bureau, German Kali Works, Havana, Cuba, dated August 7th, stating that they had sent some literature which might be of interest to the members of the Branch; and that if they cared to have a number of one or more of the pamphlets, the Secretary of the Branch could let them know and they would be pleased to send them. The pamphlets referred to are one copy "Tobacco Culture," and one copy "Bananas in the West Indies." The Secretary was instructed to write to the German Kali Works thanking them for their valued favour, and that we would be glad to take advantage of their kind offer to supply us with a few more copies of the pamphlets. The business of the evening being disposed of the meeting adjourned. On Monday, August 30th, our Instructor, or Mr. H. Q. Levy, hopes to meet the planters (as many of them as can be present) to give practical demonstrations in Mr. Joseph Hall's cultivation here.—JOSIAH JOHNSON, Secretary.

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Rio Minho (Clarendon).—A large and enthusiastic meeting in connection with this Society, was held here on Monday evening, the 30th August, Mr. E. R. Bryan in the chair. The most important questions dealt with were the coming general election for the Parochial Board and the proposed branch railway to Chapelton. Mr. David Horn, one of the candidates for election, was present and addressed the meeting. In going around the districts he saw evidences of good work being done in the neat appearances of the cottages and the well-kept holdings. Upper Clarendon was much neglected in the past, and from what he has been able to gather the parish had a prosperous past, but he was convinced that without greater facilities in transport in the shape of a branch railway up the Minho Valley, and more and better roads, we would never enjoy that prosperity which the fertility of the parish warrants. To these improvements he was pledged and he asked for their support in the coming contest. Mr. Horn also spoke on the duties of citizenship. Mr. U. T. McKay followed.

urging on the voters to interest themselves in going to the polls to record their votes. Mr. E. A. Haynes followed, encouragingly. Mr. Robert Morgan was determined not to vote for any man he did not know, for it never happens that they do any good. A resolution from the Society to the effect that the members pledge themselves to work for the return of six men alive to the interests of Upper Clarendon, was proposed by Mr. Robert Morgan, seconded by Mr. E. A. Haynes and carried. The members of the Branch are not satisfied with the reply from the Parochial Board that the reason the road through Cupid's, promised to them over a year ago, has not been worked, is from the lack of funds. Mr. Joseph Cameron of Green River, exhibited a fine pair of fowls under six months; a first cross of a Black Orpington rooster. They came in for much admiration. This is a result of good blood. The next meeting comes off September, 22nd.—N. THEO. MCKAY, Secretary.

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Smithville (Clarendon).—The regular monthly meeting of this Branch was held on Friday, 13th August. There was a large attendance of members. A letter from Mrs. Bourne asking for the co-operation of the Branch Society with the S.P.A.J., was read, and the members present unanimously pledged their support. The question of a driving road from Smithville to Thompson Town, then came up for discussion. The Secretary read correspondence on the matter from Mr. Barclay, Hon. W. Fitzherbert and the Colonial Secretary, and the members expressed their opinions freely. Mr. Douglass then pointed out the impracticability of constructing a driving road down the Valley of the Thomas River to Chapelton, and suggested that the road be constructed from Smithville to "Loading Place" *en route* to Thompson Town and then follow the old road used in time of slavery to Blackwoods and Beckford Kraal to Chapelton. Mr. Hirst, the Instructor, was of like opinion and further pointed out that it would be economy to the Government to improve the road from Thompson Town to Four Paths. Mr. Charles Dove then moved the following resolution, seconded by Mr. Hiram Peck: "In view of the reports of the Director of Public Works, which was read at the July meeting of the Clarendon Parochial Board, in reference to the construction of a driving road from Thompson Town *via* Smithville and Nine Turns to Frankfield, in which he suggested that in view of the proposal to construct a branch railway to Chapelton, it would be absurd to entertain the idea of constructing such a road, resolved that the following view be set forth to the Government—that if a driving road were to be constructed to Chapelton in order to meet the needs of the impending railway question, the most practicable route would be from Smithville to within a half mile of Thompson Town, *via* Blackwoods and Beckford Kraal to Chapelton: and if the road be constructed to Thompson Town now, in case of a construction to Chapelton, it would be a continuation of the same road from Smithville to Thompson Town." On the motion of Mr. Edwards, seconded by Mr. Fred. McLymont, the Society agreed to ask Mr. Hirst to invite the Director of Public Works or his assistant, to visit the district and that certain members of the Agricultural Society be deputed to meet and confer with him on his arrival, should he accept the invitation. The matter of holding an Agricultural Show in the district, also came up for discussion, and it was agreed on to hold the show on the 13th April next. Mr. Hirst gave very valuable help in the matter. He entered into details and estimated the cost of the show at £27 10s. He also pointed out that the appointment of a Show Committee sometimes tends to affect the general interest of the Society. Mr. Robert Pink suggested that the show would bring the district into prominence and everybody would be directly or indirectly benefited. A Committee consisting of Messrs. A. Russell, Deacon, Dove, McLymont, President and Secretary and Mrs. J. Deacon, was appointed to draft a prize list for the show. A vote of thanks was accorded Mr. Hirst for his valuable help throughout, after which the meeting terminated.—J. A. EDWARDS, Secretary.